



ALI-HVR3000H Series Alibi 4/8/16-Channel 960H HD-TVI Hybrid+ Security Digital Video Recorder User Manual

Products: ALI-HVR3004H, ALI-HVR3008H, ALI-HVR3016H



ALI-HVR3004H Series DVR

PLEASE READ THIS MANUAL BEFORE USING YOUR SYSTEM, and always follow the instructions for safety and proper use. Save this manual for future reference.



Do not expose this appliance to rain or moisture. Operate this device only in environments where the temperature or humidity is within the recommended range. Operation at extreme temperatures or in very high or low humidity levels may cause electric shock and shorten the life of the product.



FCC Caution: *To assure continued compliance, use only shielded interface cables when connecting to computer or peripheral devices. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.*

NOTE

This equipment has been tested and found to comply with the limits for a Class "A" digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

LEGAL NOTICE

Observint Technologies (Observint) products are designed to meet safety and performance standards with the use of specific Observint authorized accessories. Observint disclaims liability associated with the use of non-Observint authorized accessories.

The recording, transmission, or broadcast of any person's voice without their consent or a court order is strictly prohibited by law.

Observint makes no representations concerning the legality of certain product applications such as the making, transmission, or recording of video and/or audio signals of others without their knowledge and/or consent. We encourage you to check and comply with all applicable local, state, and federal laws and regulations before engaging in any form of surveillance or any transmission of radio frequencies.

Alibi and the Alibi logo are trademarks of Observint.

Microsoft, Windows, and Internet Explorer are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. Android is a trademark of Google Inc. Use of this trademark is subject to Google Permissions. Apple, iPhone, iPod touch, and iPad are registered trademarks of Apple Inc.

Other trademarks and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Observint disclaims any proprietary interest in trademarks and trade names other than its own.

No part of this document may be reproduced or distributed in any form or by any means without the express written permission of Observint, Inc.

© 2014 by Observint Technologies. All Rights Reserved.

11000 N. Mopac Expressway, Building 300, Austin, TX 78759
For Sales and Support, contact your distributor.

Regulatory information

FCC information

FCC compliance: This equipment has been tested and found to comply with the limits for a digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

Power Cord Requirements

The connector that plugs into the wall outlet must be a grounding-type male plug designed for use in your region. It must have certification marks showing certification by an agency in your region. The connector that plugs into the AC receptacle on the power supply must be an IEC 320, sheet C13, female connector. See the following website for more information:
<http://kroppla.com/electric2.htm>.

Preventive and Cautionary Tips

When installing and using your DVR, always follow these tips:

- Ensure unit is installed in a well-ventilated, dust-free environment.
- Unit is designed for indoor use only.
- Keep all liquids away from the device.
- Ensure environmental conditions meet factory specifications.
- Ensure unit is properly secured to a rack or shelf. Major shocks or jolts to the unit as a result of dropping it may cause damage to the sensitive electronics within the unit.
- Use the device with an uninterruptible power supply (UPS) if possible.
- Power off the unit before connecting and disconnecting accessories and peripherals.
- A factory recommended HDD should be used for this device.
- Improper use or replacement of the battery may result in hazard of explosion. Replace with the same or equivalent type only. Dispose of used batteries according to the instructions provided by the battery manufacturer.

Safety Instructions

Read these instructions and keep them in a safe place for future reference.

- Please refer all work related to the installation of this product to qualified service personnel or system installers.
- Do not operate the appliance beyond its specified temperature, humidity or power source ratings.
- Place the unit on a flat surface not prone to vibration or impact.
- Use the appliance at temperatures between 14 °F ~ 131 °F (-10 °C ~ +55 °C) and relative humidity below 90%. The input power source for this appliance is between 90 ~ 264 Vac, 47 ~ 63 Hz.
- Install the unit away from heat sources such as radiators, heat registers and stoves.
- Installation of the unit near consumer electronics devices, such as stereo receiver/amplifiers and televisions, is permitted as long as the air surrounding the terminal does not exceed the above mentioned temperature range.
- Handle hard disk drives with care.
 - It is possible to damage hard drives if they are moved while their motors are still running. To allow the hard drive to spin down and park its heads, wait at least 10 seconds after disconnecting power before moving the unit.
 - To avoid shock and vibration damage to the internal hard drive, do not move the unit while it is plugged in.
 - Protect hard disk drives from static electricity.
 - Do not stack hard disk drives or keep them upright.
 - Do not use an electric or magnetic screwdriver to install hard disk drives.
- Do not place the unit in an enclosed area where the cooling vents are blocked or impede the flow of air through the ventilation openings.
- Protect the power cord from being stepped on or pinched particularly at plugs and the points where they exit from the apparatus.
- Do not drop metallic parts through slots. This could permanently damage the appliance. Turn the power off immediately and contact qualified service personnel for service.
- Handle the appliance with care. Do not drop or shake, as this may damage the device.
- Do not expose the appliance to water or moisture, nor try to operate it in wet areas. Do not install the unit in an area where condensation occurs. Do not operate with wet hands. Take immediate action if the appliance becomes wet. Turn the power off and refer servicing to qualified service personnel. Moisture may damage the appliance and also cause electric shock.
- Do not use strong or abrasive detergents when cleaning the surfaces of this product. When dirt is hard to remove, use a mild detergent and wipe gently.
- Do not overload outlets and extension cords. Electric shock or fire may result.
- Save your system configuration.
- Distributing, copying, disassembling, reverse compiling, reverse engineering, and exporting, in violation of export laws, the software provided with this product is expressly prohibited.

Table of Contents

SECTION 1	Systems Overview.....	1
	1.1 DVR Controls, connectors and indicators.....	3
	1.1.1 Remote control.....	5
	1.1.2 Mouse control.....	7
	1.1.3 Soft keyboard.....	8
SECTION 2	Installing the System.....	9
	2.1 Getting Started: Unpacking the Equipment.....	9
	2.2 DVR installation general guidelines.....	9
	2.2.1 Installing an HDD in the DVR.....	9
	2.2.2 Placement.....	10
	2.3 Install the DVR and monitor.....	10
	2.4 Camera installation.....	11
	2.4.1 General Guidelines.....	11
	2.4.2 Install cameras.....	12
	2.5 Connecting it together – initial system setup.....	12
	2.5.1 Using the Wizard for basic configuration setup.....	13
	2.6 Opening the Menu system.....	22
	2.7 Using the Camera menu.....	23
	2.7.1 Adding IP cameras to the DVR.....	23
	2.7.2 Adding analog (CCTV and HD-TVI) cameras to the DVR.....	26
	2.7.3 Configure analog cameras - basic adjustments.....	26
	2.8 Video Quality Diagnostics.....	33
	2.8.1 Check video quality manually.....	36
	2.9 Configuring HDD settings.....	37
	2.9.1 Checking HDD status.....	37
	2.9.2 Network Storage.....	37
	2.9.3 Configuring the HDD.....	37
	2.9.4 Configuring HDD Group mode.....	39
	2.9.5 HDD Detect.....	41
	2.10 Configuring Exception Alarms.....	43
SECTION 3	Startup, Shutdown, Reboot.....	46
	3.1 Starting Up, Shutting Down and Rebooting the DVR.....	46
	3.1.1 Startup.....	46

TABLE OF CONTENTS

	3.1.2 Shutdown	46
	3.1.3 Rebooting the DVR	47
SECTION 4	Live View Interface	48
	4.1 Quick Setting Toolbar	49
	4.2 Live View pop-up menu	50
	4.2.1 Live View settings	51
SECTION 5	Record, Playback and Video Backup	53
	5.1 Configuring record settings	54
	5.1.1 Setting camera Record Parameters	54
	5.1.2 Configuring Record schedule	56
	5.1.3 Configuring Motion Detection Recording	59
	5.1.4 Manual record	62
	5.1.5 Configuring HDD Group for Recording	64
	5.1.6 Files Protection	65
	5.2 Playback	67
	5.2.1 Instant playback by channel	67
	5.2.2 Playing back video by channel	68
	5.2.3 Playing Back by Time	70
	5.2.4 Playback by Event Search	72
	5.2.5 Playback by Tag	75
	5.2.6 Playback using System logs	78
	5.2.7 Playing Back an external file	80
	5.2.8 Auxiliary Functions - Playback frame by frame	81
	5.2.9 Auxiliary Functions - Reverse Playback of Multi-channel	82
	5.2.10 Digital Zoom	83
	5.3 Backing up Record Files - Export	84
	5.3.1 Export by video search	84
	5.3.2 Export by Event Search	88
	5.3.3 Exporting Video Clips during playback	91
SECTION 6	Managing User Accounts	95
	6.1 Deleting a user account	99
	6.2 Editing a user account	99
SECTION 7	Network Settings	101
	7.1 Configuring General Settings	101
	7.2 Configuring Extranet Access	102

	7.3	Configuring NTP Server	103
	7.4	Configuring Multicast	104
	7.5	Configuring RTSP	105
	7.5.1	Configuring Server and HTTP Ports	105
	7.6	Configuring Email	106
	7.7	Configuring UPnP™	108
SECTION 8		System Maintenance	109
	8.1	System Information	109
	8.2	Log Information	109
	8.2.1	Log Search	109
	8.2.2	Log Export	111
	8.3	Import / Export system configuration	113
	8.4	Upgrade Firmware	115
	8.5	Default	117
	8.6	Net Detect	117
	8.6.1	Checking Network Traffic	117
	8.6.2	Testing Network Delay and Packet Loss	118
	8.6.3	Exporting Network Packet	119
	8.6.4	Checking the network status	120
	8.6.5	Checking Network Statistics	121
SECTION 9		Remote Access	122
	9.1	Remote login	122
	9.2	Remote Live View screen	125
	9.3	Remote Playback screen	127
	9.4	Remote Log screen	129
	9.5	Remote Configuration screen	129
SECTION 10		Cleaning	131
SECTION 11		Specifications	132
APPENDIX A		Glossary	134
APPENDIX B		FAQ	135
APPENDIX C		HDD Installation	137
	C.1	DVR compatible HDDs	137
	C.2	HDD Installation	137
	11.5.1	ALI-HVR3004H and ALI-HVR3008H HDD installation	137
	11.5.2	ALI-HVR3016H HDD installation	141

SECTION 1

Systems Overview

Congratulations on purchasing your new ALI-HVR3000H Series 960/720P/1080P TVI Hybrid+ Digital Video Recorder security system! Your system will accommodate analog, Alibi HD-TVI and Alibi IP cameras. Key features include:

General

- H.264 video compression with high reliability and superior definition
- Each channel supports dual-stream
- Connectable to Alibi HD-TVI and analog cameras
- Connectable to IP cameras from certain company
- Each channel supports dual-stream. Main stream supports IP cameras at 720P resolution (ALI-HVR3004H, ALI-HVR3008H), and up to 1080P resolution (ALI-HVR3016H). Sub-stream supports up to 960H resolution
- Independent configuration for each channel, including resolution, frame rate, bit rate, image quality, etc.
- Encoding for both video stream and video & audio stream; audio and video synchronization during composite stream encoding
- Watermark technology

Local Monitoring

- Simultaneous HDMI, VGA video outputs
- HDMI/VGA output at up to 1920 × 1080p resolution
- 1 / 4 / 6 / 8 / 9 / 16-division live view screen is supported. The display sequence of screens is configurable
- Live view screen can be switched by group. Manual switch and automatic cycle view is also provided. The interval of automatic cycle can be configurable
- Quick setting menu is provided for live view
- The selected live view channel can be shielded
- Motion detection, video tampering detection and video loss alarm functions
- Privacy mask
- Multiple PTZ protocols supported; setting and calling of PTZ preset, patrol and pattern
- Zooming in by clicking the mouse and PTZ tracing by dragging mouse

HDD Management

- 1 SATA hard disk can be connected, with a maximum of 4TB storage capacity (ALI-HVR3004H, ALI-HVR3008H only), or 2 SATA hard disks, with a maximum of 8TB storage capacity (ALI-HVR3016H only).
- Supports S.M.A.R.T. and bad sector detection
- Supports HDD sleeping function
- HDD property: redundancy, read-only, read/write (R/W)
- HDD quota management; different capacity can be assigned to different channels
- HDD group management (ALI-HVR3016H with multiple HDDs only)
- HDD property: redundancy, read-only, read/write (R/W)

Recording and Playback

- Holiday recording schedule configuration
- Cycle and non-cycle recording modes; Normal and event video encoding parameters
- Multiple recording types: manual, continuous, alarm, motion, motion | alarm, motion & alarm
- 8 recording time periods with separated recording types
- Pre-record and post-record for motion detection for recording, and pre-record time for schedule and manual recording
- Searching record files by event
- Customization of tags, searching and playing back by tags
- Locking and unlocking record files
- Searching and playing back record files by channel number, recording type, start time, end time, etc.
- Smart search for the selected area in the video
- Zooming in when playback
- Reverse multi-channel playback
- Supports pause, slow forward, fast forward, skip forward, and skip backward during playback; locate video by dragging the mouse on the the progress bar
- Up to 4 / 8 / 16 channel synchronous playback. 16 channel synchronous playback at maximum camera recording resolution

Backup

- Export data to a USB or SATA device
- Export video clips during playback
- Management and maintenance of backup devices

Alarm and Exception

- Configurable arming time of alarm input/output
- Alarm for video loss, motion detection, tampering, abnormal signal, video input/output resolution mismatch, illegal login, network disconnected, IP confliction, record exception, HDD error, and HDD full, etc.
- Alarm event triggers full screen monitoring, audio alarm, notifying surveillance center, sending email and alarm output
- Automatic restore when system is abnormal.

Other Local Functions

- Manual and automatic video quality diagnostics
- Operable by mouse or remote control
- Three-level user management; admin user can create accounts and define their operating permissions, including access to camera channel
- Operation, exceptions and log recording and search
- Manually triggering and clearing alarms
- Export and import DVR configuration
- Automatically retrieves camera type information

Network Functions

- 1 self-adaptive 10Mbps / 100Mbps network interface
- IPv6 is supported
- TCP/IP protocol, PPPoE, DHCP, DNS, DDNS, NTP, SADP, SMTP, NFS, iSCSI, UPnP™, HTTPS are supported
- TCP, UDP and RTP for unicast
- Auto/manual port mapping by UPnP™
- Remote search, playback, download, locking and unlocking the record files, and downloading files broken transfer resume
- Remote parameters setup; remote import/export of device parameters
- Remote viewing of the device status, system logs and alarm status
- Remote keyboard operation
- Remote locking and unlocking of control panel and mouse
- Remote HDD formatting and program upgrading
- Remote system restart and shutdown
- Support upgrading via remote FTP server
- Alarm and exception information can be sent to the remote host
- Remotely start/stop recording
- Remotely start/stop alarm output
- Remote PTZ control
- Remote JPEG capture
- Two-way audio and voice broadcasting
- Embedded WEB server

1.1 DVR Controls, connectors and indicators

Your new security system is easy to use and easy to setup. This section includes the function and use of the components included with a DVR system. For installation instructions, refer to Section 2. Advanced control and configuration procedures are included in Sections 3 through 9.

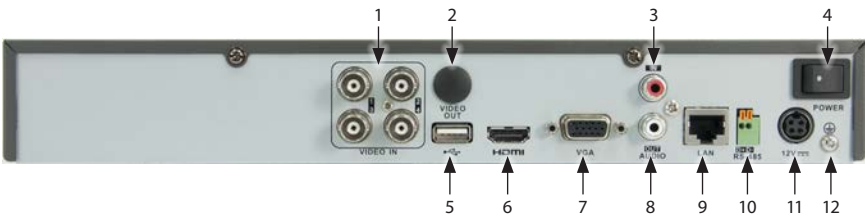
DVR Front Panel



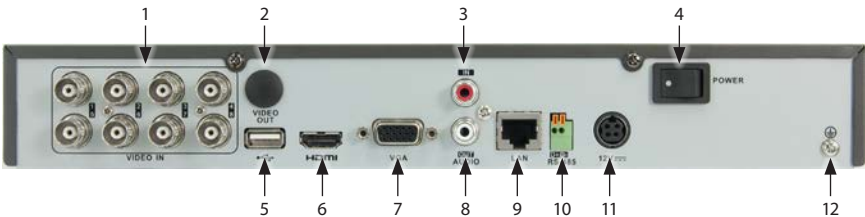
*ALI-HVR3004H, ALI-HVR3008 front panel
(ALI-HVR3016H (not shown) has the same items)*

Item	Usage
Power LED	Indicator turns green when DVR is powered up.
Status	STATUS indicator lights in red when HDD is reading/writing.
TX / RX	LED indicator blinks green when network connection is functioning properly.
IR Receiver	Sensor for the remote control.
USB Interface	This port can be used for a USB mouse or USB flash memory devices.

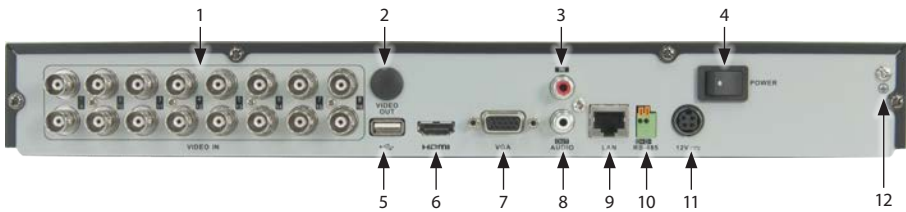
DVR Backpanels



ALI-HVR3004H backpanel



ALI-HVR3008H backpanel



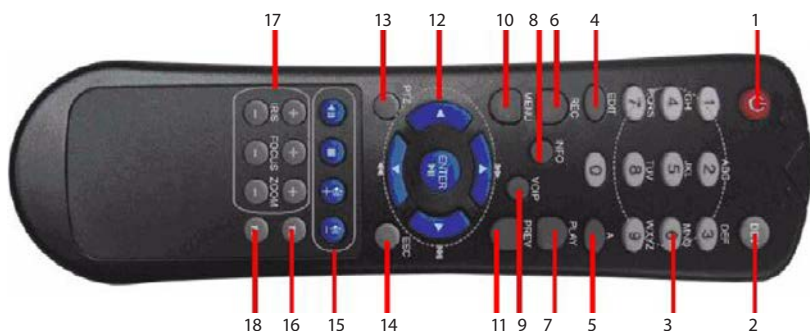
ALI-HVR3016H backpanel

	Item	Description
1	VIDEO IN	BNC connectors for camera video channels in. Number of channels is dependent on the model of the DVR.
2	Monitor Out	Not used.
3	AUDIO IN	RCA connector for audio in cable.
4	ON / OFF switch	Switch for powering the DVR on and off
5	USB	This port can be used for a USB mouse or USB memory device such as a flash drive or DVD burner. An additional USB port is located on the front panel.
6	HDMI	Connector HDMI monitor cable.
7	VGA	Connector VGA monitor cable.
8	AUDIO OUT	RCA connector for audio out cable.
9	LAN	RJ-45 connector for Ethernet drop cable.
10	RS-485 terminations	Connector for RS-485 devices. Connect the D+ and D- terminals to T+ and T- of PTZ receiver respectively.
11	12 Vdc	Plug for 12 Vdc power adapter (provided).
12	GND terminal	Ground terminal post.

1.1.1 Remote control

The enter key on the remote control or the front panel has the same function as a mouse left click. The IR Range of the remote control is about 33 feet. The buttons on the remote control correspond with the buttons on the front panel.

SECTION 1: SYSTEM OVERVIEW



Item	Name	Function
1	POWER	Power on/off the device.
2	DEV	Enables/Disables Remote Control.
3	Alphanumeric Buttons	Switching to the corresponding channel in Live view or PTZ Control mode. Inputting numbers and characters in Edit mode. Switching between different channels in All-day Playback mode.
4	EDIT Button	Editing text fields. When editing text fields, it will also function as a Backspace button to delete the character in front of the cursor. On checkbox fields, pressing the EDIT button will tick the checkbox. In Playback mode, it can be used to generate video clips for backup.
5	A Button	Switching between input methods (upper and lowercase alphabet, symbols and numeric input).
6	REC Button	Entering the Manual Record settings menu. In PTZ control settings, press the REC button and then you can call a PTZ preset by pressing Numeric button.
7	PLAY Button	Playback, for direct access to playback interface.
8	INFO Button	Reserved.
9	VOIP button	Selecting all items on the list; In live view or playback mode, it can be used to switch between main and spot video output
10	MENU button	Press the button will help you return to the Main menu (after successful login). Press and hold the button for 5 seconds to turn off audible key beep.
11	PREV button	Switch between single screen and multi-screen mode.
12	DIRECTION/ENTER buttons	Navigating between different fields and items in menus. In Playback mode, the UP and DOWN button are used to speed up and slow down recorded video. The LEFT and RIGHT buttons select the next and previous day of recordings. In LIVE view mode, these buttons can be used to cycle through channels.
13	PTZ button	Enter the PTZ Control mode.
14	ESC button	Return to the previous menu. Press for Arming/disarming the device in Live View mode.
15	RESERVED	Reserved for future usage.
16	F1 button	Selecting all items on the list when used in a list field. In PTZ Control mode, it will turn on/off PTZ light.

Item	Name	Function
17	PTZ Control buttons	Buttons to adjust the iris, focus and zoom of a PTZ camera.
18	F2 button	Cycle through tab pages.

NOTE Before using the Remote Control, install two AAA batteries.

Remote Control setup

Before using the Remote Control, you must setup the ID number in the Remote Control to match the DVR ID number configured in the recorder:

1. Start the DVR, and then use the mouse to go to **Menu | Settings | General | More Settings**. Refer to Chapters 2 thru 6 for more information.
2. Check and remember DVR ID#. The default ID# is 255. This ID# is valid for all IR remote controls.
3. Press the **DEV** button on the remote control.
4. Enter the DVR ID# found in step 2.
5. Press the **ENTER** button on the remote.

If the **Status** indicator on the front panel turns blue, the remote control is operating properly. If the Status indicator does not turn blue and there is no effect using the remote control, verify the following:

1. Batteries are installed correctly and the polarities of the batteries are not reversed.
2. Batteries are fresh and not out of charge.
3. IR receiver (on the front panel) is not obstructed.

If the remote still cannot function properly, replace the Remote Control and try again, or contact your vendor provider.

1.1.2 Mouse control

A standard 3-button (left/right/scroll-wheel) USB mouse can also be used with this DVR. To use a USB mouse:

1. Plug the USB mouse into the either the front panel or backpanel USB connector of the DVR.

SECTION 1: SYSTEM OVERVIEW

- The mouse will be automatically detected. If the mouse is not detected, the mouse may not be compatible with the DVR. Please refer to the recommended device list from your provider.

The operation of the mouse:

Action	Effect
Left click	Single click: Live view: Select channel and show the quick set menu. Menu: Select and enter.
	Double click: Live view: Switch between single-screen and multi-screen.
	Click and drag: PTZ control: pan, tilt and zoom. Tamper-proof, privacy mask and motion detection: Select target area. Digital zoom-in: Drag and select target area. Live view: Drag channel/time bar
Right click	Live view: Show menu. Menu: Exit current menu to upper level menu.
Scroll wheel	Scroll up: Live view: Previous screen. Menu: Previous item.
	Scroll down: Live view: Next screen. Menu: Next item.

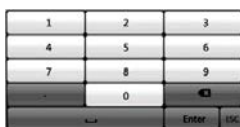
1.1.3 Soft keyboard

An on-screen QWERTY keyboard appears when you click in a field that accepts a text entry, such as a password or name. The keyboard is shown in the following picture. Some control keys toggle their function when they are clicked.



Soft keyboard

Clicking on numeric fields to enter data sometimes opens the numeric keyboard. See below.



Numeric keyboard

SECTION 2

Installing the System

2.1 Getting Started: Unpacking the Equipment

What's in the box

Your system includes:

- ALI-HVR3000H Series DVR
- Remote Control
- USB mouse
- HDMI cable
- Power adapter for DVR
- CD with documentation
- This Quick Start Guide

Remove the equipment from its packaging and place it on a flat, clean surface. Inspect each item. If any visible damage is present, contact your supplier for a replacement. Verify that your order is complete.

What you need

Although each security system installation is different, most require the following items not included with your system components:

- Cameras and cables compatible with the DVR. The Video in ports on the backpanel support most analog CCTV camera brands and Alibi HD-TVI analog cameras
- IP cameras installed on the Ethernet network (LAN) that associated with the DVR must be Alibi IP cameras.
- Tools to install the cameras and route power and video cables
- Fasteners to attach the cameras to the mounting surfaces
- VGA or HDMI compatible computer monitor to connect to the DVR. (An HDMI cable is provided.)
- Uninterruptible power supply (UPS) is recommended. This device is used to ensure system stability during voltage surges, sags, and outages. If a UPS is not available, a power strip with strong surge protection is highly recommended.

2.2 DVR installation general guidelines

2.2.1 Installing an HDD in the DVR

If you purchased your DVR without an internal HDD, or you want to install an additional HDD (ALI-HVR3016H only), follow the procedure in "APPENDIX C HDD Installation" on page 113 before continuing. An HDD must be installed in the DVR before it can be used.

2.2.2 Placement

Your monitoring and recording equipment is the core device for constant surveillance and the reliable capture of video evidence. Observint Technologies strongly suggest that it be installed in a secure location with access limited to authorized personnel.

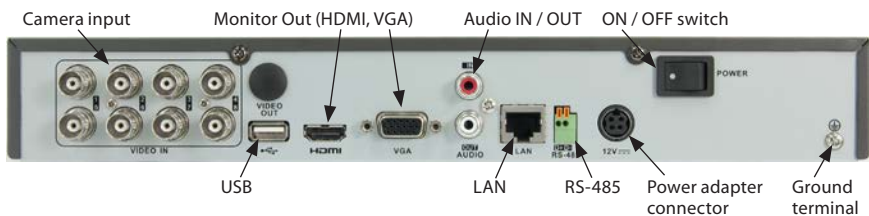
DVRs and monitors generate heat and should be placed in a clean and well ventilated area. A high temperature environment will reduce the life span and reliability of the equipment. Additionally, the DVR is not weatherproof, so avoid exposure to liquids and excessive dust. Do not place objects along the sides of the DVR that will block airflow through the unit.

Uninterruptible power supplies

It is strongly suggested that power to the system be routed through an uninterruptible power supply (UPS). These devices will keep your security system running through most power outages, in addition to providing excellent surge and sag protection. The UPS should support the DVR and all cameras to ensure normal operation during abnormal power conditions.

Proximity to other cameras and the local LAN

Your DVR connects to cameras through coaxial cables, and to an Ethernet network for remote access. The coaxial cables must be short enough to provide a good signal level to the DVR from your cameras. Connectorized coaxial cables with a power and audio leads are usually available in lengths up to 100 ft from your supplier. Ethernet drop cables can be up to 330 ft (100 m) in length. All cables attach to the backpanel of the DVR (see below). A front panel USB port is also provided for a USB mouse or USB flash memory device.



2.3 Install the DVR and monitor

For the following steps, refer to the back panel photo above for the location of connectors.

1. Place the DVR in a location that is secure, well ventilated and clean. The DVR should be positioned such that the backpanel connectors are accessible and the ventilation holes on the sides are not blocked.
2. Install and setup your monitor in accordance with the instructions provided with the monitor. Do not power it on at this time.
3. Cable the HDMI or VGA connector to your monitor's VGA or HDMI input. The HDMI interface provides the best performance.
4. Plug the mouse into the USB connector on the front or back of the DVR.

5. If you plan to access your DVR remotely, or configure your DVR to transmit alerts, email, etc. to external servers, plug a drop cable from your local area network (LAN) into the RJ-45 LAN connector on the back of the DVR. (By default, the DVR automatically acquires network settings using DHCP.)
6. Connect the power cord to the power connector on the back panel of the DVR, and then into a UPS (preferred) or surge protector.

NOTE *Do not power on the DVR at this time.*

2.4 Camera installation

Always refer to the documentation provided with the camera for installation instructions. The general guidelines provided below include information about installing security cameras that is often not found in manufacturer's documentation. Installing your cameras with consideration of these guidelines can help improve the performance and reliability of your system.

2.4.1 General Guidelines

Camera placement

Plan your camera installation carefully. Identify the locations where cameras will provide the best coverage, considering:

- **Distance from the DVR** – for best performance, your cameras must provide an optimal video signal (and audio signal, if used) to your DVR. For most installations, a length of good quality coaxial cable can be up to 100 ft. The inherent signal loss in longer cables may degrade quality.
- **Field of view** – Cameras should be positioned so they can effectively view the entire area that must be monitored, and in a location where it is difficult to tamper with them.
- **Lighting** – Light shining directly on the camera lens or bright reflections from shiny objects in the field of view can diminish video quality and camera performance. Mount the camera in a shaded area, if possible, or where light shining on or reflected onto the lens can be minimized.
- **Ease of installation** – It must be possible to install the camera at the location, considering mounting hardware requirements, mounting surface, contamination, etc.
- **Environmental specifications** – Check the specifications of your cameras to ensure the location where they will be installed is within the environmental constraints of the camera.

About weatherproof cameras

Weatherproof cameras can be mounted in any open area, such as on a telephone pole or on the side of a building. For best results, we recommend you mount your cameras in a sheltered area, such as under the eave or roof of a building, if possible.

SECTION 2: INSTALLING THE SYSTEM

Weatherproof cameras compatible with your DVR may have cables attached to the camera body and not routed through the camera base. If these cameras are installed in a moist environment, a drip loop should be constructed in the drop cable such that moisture will tend to flow away from the camera and drop cable connectors.



NOTE *Cable connectors are not weatherproof.*

LAN/power cables can be run almost anywhere, and are frequently routed through attics or above drop/acoustic ceilings because of the ease of installation. For added security, we recommend that you run your cables in areas with limited access to prevent tampering. Avoid running the cable near high voltage appliances such as fluorescent lighting. Electrical noise and magnetic fields produced by these devices may affect video and communication signal quality.

2.4.2 Install cameras

Install your security cameras as needed to support your security requirements. Always refer to the documentation provided with the camera for installation instructions.

2.5 Connecting it together – initial system setup

1. Plug the coaxial cables from the cameras into the BNC camera input connectors on the back of the DVR.
2. Power on the DVR using the power on / off (I / O) switch on the back panel.
3. Power on the monitor.

NOTE

Some monitors have multiple inputs such including VGA, HDMI, BNC, etc. If you are using this kind of monitor, configure your monitor to display the input connected to your DVR (HDMI or VGA).

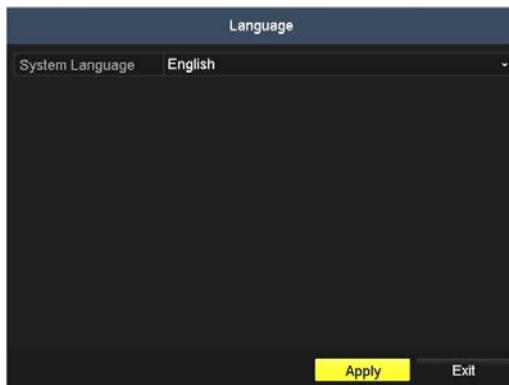
4. Power on your cameras.

2.5.1 Using the Wizard for basic configuration setup

When the DVR is powered on, an Alibi logo splash screen appears within 2 minutes.



1. After the initial Alibi loading window (see above), a menu language screen may appear. Select the preferred language from the drop-down list, then click **Apply**.

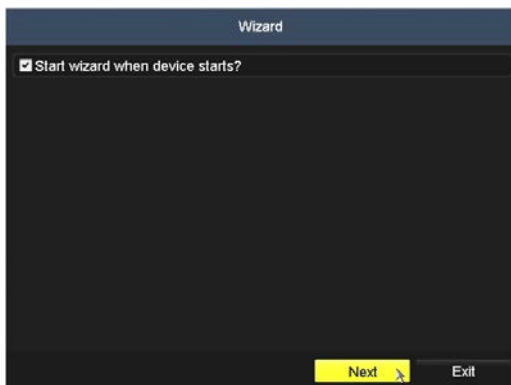


2. The Setup Wizard can assist you in making important configuration settings in the DVR. Click **Next** button on the Wizard window to open the **Login** window.

SECTION 2: INSTALLING THE SYSTEM

NOTE

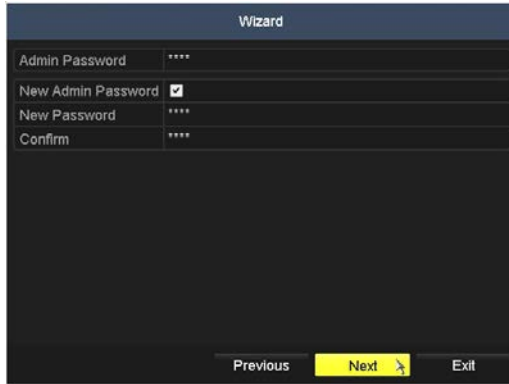
The configuration settings presented in the setup Wizard can also be made and changed using the **Menu** system. See Chapters 5 - 7 for more information.



3. Enter the admin password in the appropriate field. To do that, click inside the **Admin Password** field to open the virtual keyboard. Click the appropriate icons to enter the password, then click the **Enter** icon. The default **admin** password is **1111**.



Observint strongly recommends that you change the default admin user password to improve the security of your surveillance system. To change the admin password, check the **New Admin Password** box, then enter a new password in the **New Password** and **Confirm** fields. Record your new password and save it in a secure location.

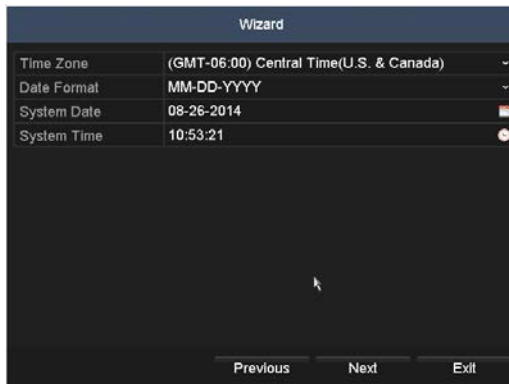


The Wizard screen displays four input fields for password configuration. The 'New Admin Password' field has a checkmark icon to its right. At the bottom, there are three buttons: 'Previous', 'Next' (highlighted in yellow), and 'Exit'.

Wizard	
Admin Password	****
New Admin Password	<input checked="" type="checkbox"/>
New Password	****
Confirm	****

Previous Next Exit

- Click the **Next** button to open the date and time settings window.



The Wizard screen displays four settings for date and time configuration. Each field has a drop-down arrow or a clock icon to its right. At the bottom, there are three buttons: 'Previous', 'Next', and 'Exit'.

Wizard	
Time Zone	(GMT-06:00) Central Time(U.S. & Canada) ▾
Date Format	MM-DD-YYYY ▾
System Date	08-26-2014 📅
System Time	10:53:21 🕒

Previous Next Exit

- In the date and time setup window, click the field you want to change, then use the drop-down list or setup aid to select the appropriate values. For instance, click the Time Zone field, then highlight Time Zone for your DVR.

SECTION 2: INSTALLING THE SYSTEM

Wizard	
Time Zone	(GMT-06:00) Central Time(U.S. & Canada)
Date Format	(GMT-06:00) Central Time(U.S. & Canada)
System Date	(GMT-05:00) Eastern Time(U.S. & Canada)
System Time	(GMT-04:30) Caracas
	(GMT-04:00) Atlantic Time(Canada)
	(GMT-03:30) Newfoundland
	(GMT-03:00) Georgetown, Brasilia
	(GMT-02:00) Mid-Atlantic
	(GMT-01:00) Cape Verde Islands, Azores
	(GMT+00:00) Dublin, Edinburgh, London
	(GMT+01:00) Amsterdam, Berlin, Rome, Paris
	(GMT+02:00) Athens, Jerusalem, Istanbul
	(GMT+03:00) Baghdad, Kuwait, Moscow
	(GMT+03:30) Tehran
	(GMT+04:00) Caucasus Standard Time
	(GMT+04:30) Kabul

Click the other fields in the window and make the appropriate changes, if needed.

- Click **Next** to confirm your settings or **Cancel** to discard them and open the network setup Wizard window.
- In the **Network** setup Wizard window, click the field value you want to change, then use the pop-up aid to enter a new value. By default, the DVR uses DHCP (Dynamic Host Configuration Processor) to acquire compatible (dynamic, changeable) network settings from a network DHCP server.

Wizard	
NIC Type	10M/100M Self-adaptive
Enable DHCP	<input checked="" type="checkbox"/>
IPv4 Address	192.168.75.68
IPv4 Subnet Mask	255.255.255.0
IPv4 Default Gateway	192.168.75.1
Preferred DNS Serv...	
Alternate DNS Server	

Previous
Next
Exit

Generally, it is preferable to setup the DVR with fixed network settings, if possible, to assure the DVR has an unchanging IP address for remote logins. To enable fixed network settings, uncheck the **Enable DHCP** checkbox, then edit the appropriate fields to change the settings. Consult with your network administrator to determine the best network settings for your DVR. When finished, click **Next**.

In the screen below, the Enable DHCP checkbox was cleared and the IPV4 Address was changed to 192.168.75.8.

Wizard	
NIC Type	10M/100M Self-adaptive
Enable DHCP	<input type="checkbox"/>
IPv4 Address	192.168.75.8
IPv4 Subnet Mask	192.168.75.0
IPv4 Default Gateway	192.168.75.1
Preferred DNS Serv...	8.8.8.8
Alternate DNS Server	
<div>Previous Next Exit</div>	

In the screen below, other fields were changed appropriately, and the Preferred DNS Server address was set to 8.8.8.8.

Wizard	
NIC Type	10M/100M Self-adaptive
Enable DHCP	<input type="checkbox"/>
IPv4 Address	192.168.75.8
IPv4 Subnet Mask	255.255.255.0
IPv4 Default Gateway	192.168.75.1
Preferred DNS Serv...	8.8.8.8
Alternate DNS Server	
<div>Previous Next Exit</div>	

8. Click **Next** after you configured the network parameters. In the screen shown below, you can change the Server Port, HTTP port, and RSTP port if using these port numbers interferes with other devices on your network. In most cases, they will not. To change a port number, click the field, then enter the new number using the pop-up soft keyboard. For more information about how to change these ports, refer to "SECTION 7 Network Settings" on page 101 and credible sources on the Internet.

SECTION 2: INSTALLING THE SYSTEM

The screenshot shows a 'Wizard' window with the following fields and values:

Server Port	8000
HTTP Port	80
RTSP Port	1050
Enable UPnP	<input type="checkbox"/>
Enable DDNS	<input type="checkbox"/>
DDNS Type	SimpleDDNS
Server Address	www.simplesddns.com
Device Domain Name	
User Name	
Password	

At the bottom, there are three buttons: 'Previous', 'Next' (highlighted in yellow), and 'Exit'.

In the screen above, you can also enable UPnP™ (Universal Plug and Play) and DDNS, Dynamic DNS, to easily access your DVR from outside the local network (i.e., the Internet). If setting up DDNS, the parameters you must configure depend on the DDNS server you use. Refer to “SECTION 7 Network Settings” on page 101 for more information about these features. Click **Next** to continue.

- In the HDD Management wizard, if a new DVR is shipped with a pre-configured HDD, nothing needs to be done with it in this window. If you installed an HDD or replaced the HDD, that HDD needs to be initialized by the DVR before it can be used. Select (check the box for) that HDD, then click **Init** to initialize the disk for the DVR. **NOTE: Init** will erase all data from the disk and can take several minutes to complete. When the initialization is complete, click **Next** to continue.

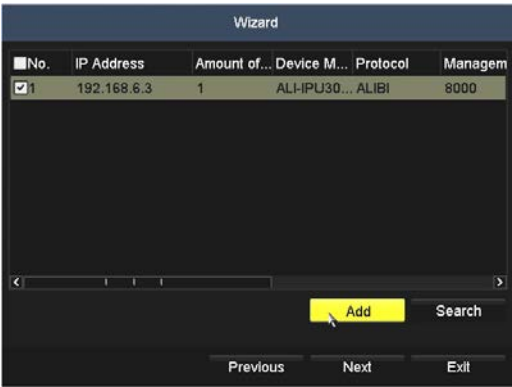
The screenshot shows a 'Wizard' window with a table of detected cameras:

No.	IP Address	Amount of...	Device M...	Protocol	Managem
<input checked="" type="checkbox"/> 1	192.168.6.3	1	ALI-IPU30...	ALIBI	8000

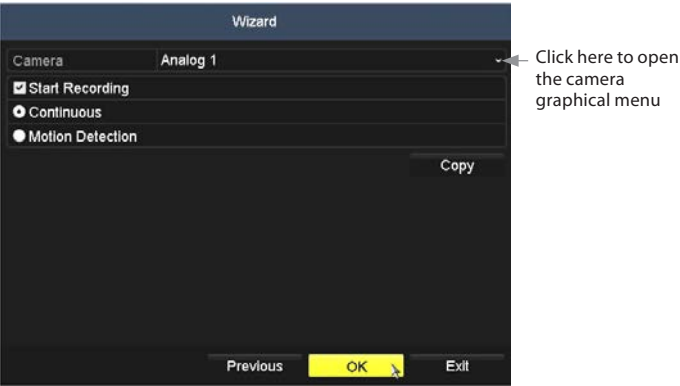
Below the table, there are 'Add' and 'Search' buttons. At the bottom, there are three buttons: 'Previous', 'Next' (highlighted in yellow), and 'Exit'.

- In the next window, the DVR will display all Alibi IP cameras it can find on the LAN. You can add any of these cameras to your DVR if the number of cameras plugged into the BNC connectors on the backpanel plus the number of IP cameras you add here does not exceed the channel capacity of your DVR (ALI-DVR3004H supports 4 camera channels, ALI-DVR3008H supports 8 camera channels, etc.).

To add the IP camera shown in the screen below, click the box for the camera in the list you want to add to check mark it, then click the **Add** button. Click **Next** to continue.



11. In the camera recording screen, you can initially select the recording mode for each camera attached to the camera input BNC connectors on the back panel and the IP cameras you added. By default, the DVR is configured to record the video from all cameras continuously.

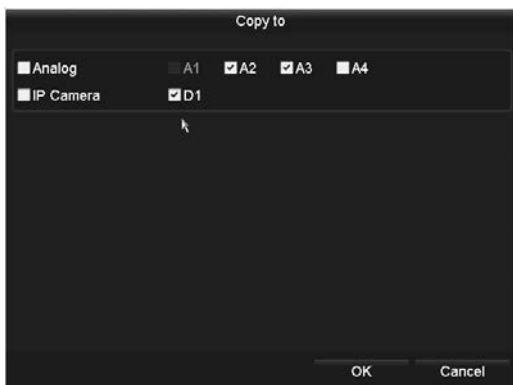


To use this menu:

- a. Open the Camera options graphical menu and select the camera to configure. "1" (Analog 1) identifies the camera plugged into the camera input BNC connector 1, "2" (Analog 2) identifies the camera on BNC connector 2, etc. In the screen below, camera "5" is the IP camera added in the previous screen.

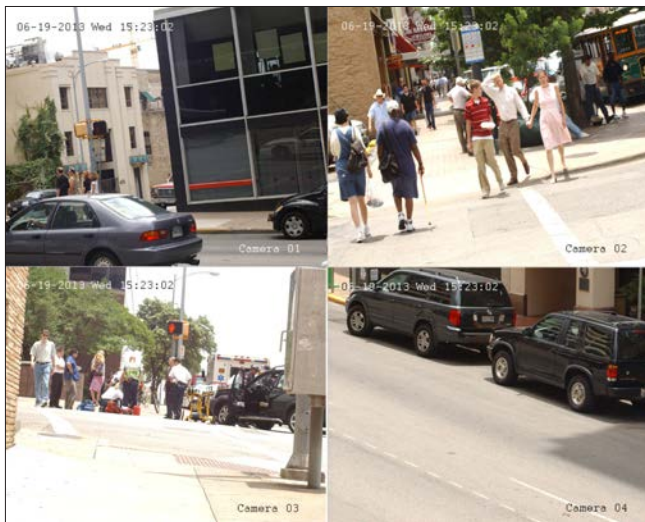
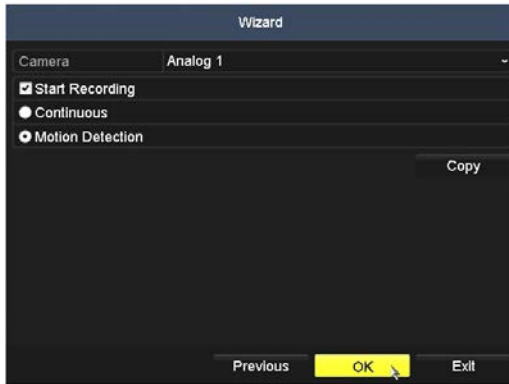


- b. Click the **Start Recording** box to check it if not checked, then click the bullet for either **Continuous** mode recording or **Motion Detection** mode recording.
- c. Do one of the following:
 - * To copy these recording settings to other cameras connected to the DVR, click **Copy**, then select the other cameras to you want to apply the settings to.



- * To configure another camera differently, open the **Camera** graphical menu and select the next camera to configure. Then repeat the steps above to configure the recording mode for that camera. You can also **Copy** these settings to other cameras.

- d. After configuring the recording mode for each camera, click **OK** to confirm your settings and close the Wizard. The Wizard will close and the DVR will present the **Live View** display. For more information about the Live View display, see “SECTION 4 Live View Interface” on page 48.



Live View display

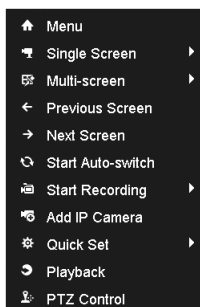
12. While viewing video from each cameras in the **Live View** display, adjust the direction of each camera to aim it at its surveillance target. Follow the manufacturer's recommended procedures for aiming the cameras.



2.6 Opening the Menu system

After the initial setup of your DVR using the Wizard, the Menus interface enables you to refine your configuration settings and expand the functionality of the system. To use most menus, the user must log into the DVR system, either locally or remotely, with administrative privileges.

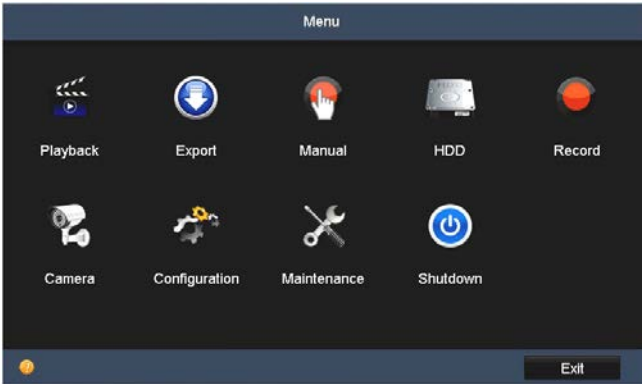
To open the Main menu system from the Live View screen, **right** click anywhere in the live view screen, then select **Menu**.



If ID Authentication is not disabled (see the General Settings), a login window will open. In the Login window, select a User Name with administrative privileges, click in the password, then click the **Enter** key, and then click **OK**. The default user *“admin”* has the default password of *“1111”*.



A window of Menu icons will open.



Main menu screen

2.7 Using the Camera menu

The Camera menu includes several submenus that allow you to add additional IP cameras to your system, configure individual analog cameras, control PTZ cameras, and other functions.

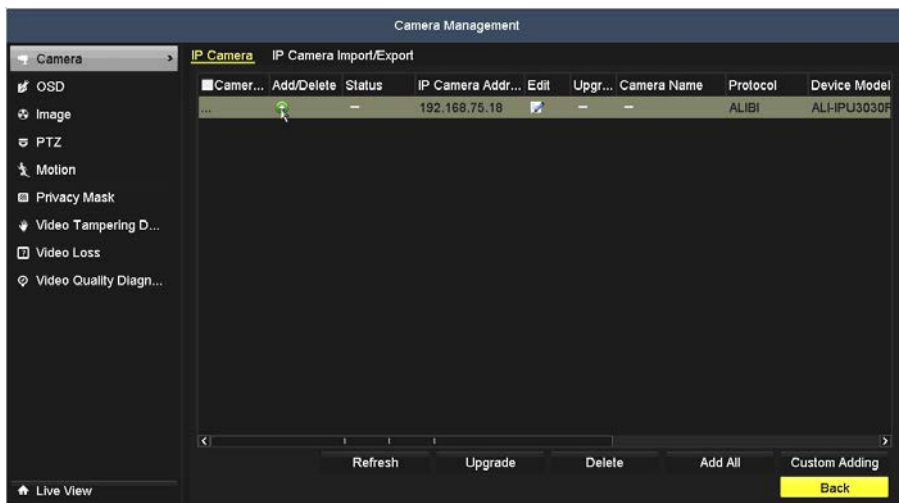
2.7.1 Adding IP cameras to the DVR

The Camera | IP Camera submenu displays a list of the IP cameras added to the system, and the Alibi IP cameras it discovered on the network. **NOTE:** when adding cameras to the DVR, do not exceed the channel capacity of the DVR.

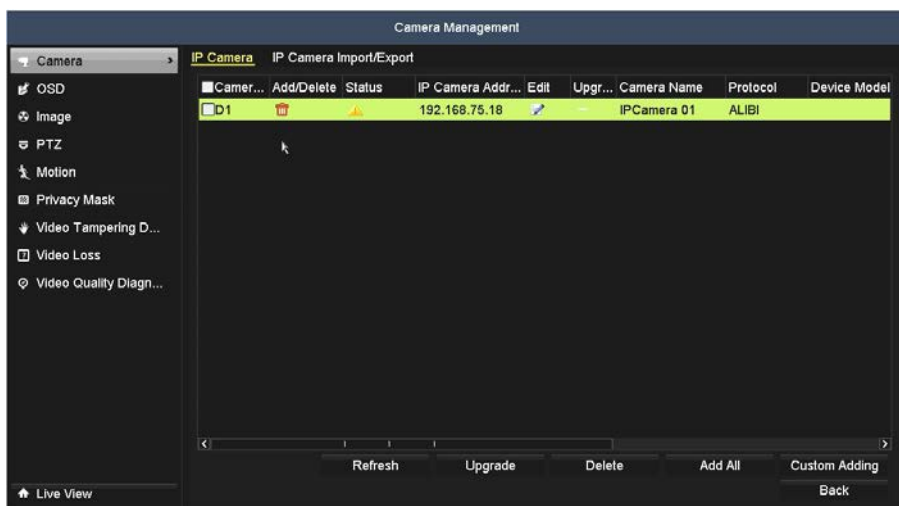
To add an IP camera to your DVR for monitoring:

1. Open the Camera menu. Go to **Main menu | Camera**

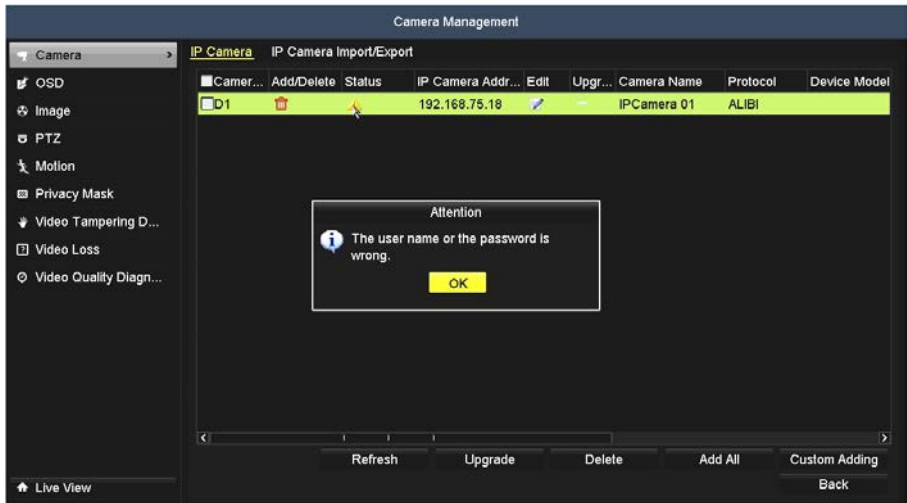
SECTION 2: INSTALLING THE SYSTEM



2. In the screen shown above the camera listed includes a round, green “+” icon in the **Add/Delete** column. It also shows the **IP Camera Address**, an icon in the **Edit** column, the **Protocol**, and the **Device Model** (SKU). To add this camera to your system, click the round, green “+” icon. The add process should take a few seconds.



- After the add process (see the screen above), an “alert” icon in the Status column. Click on the alert icon to display the cause of the status.

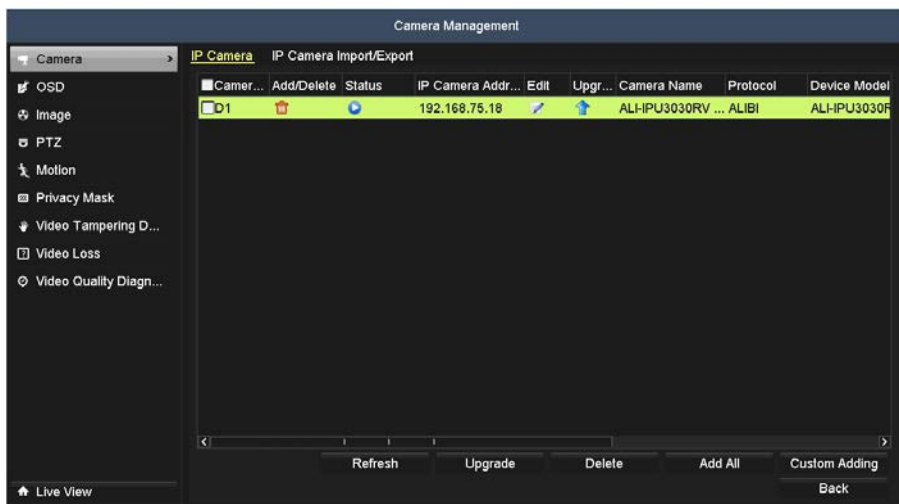


- To correct the alert condition (“user name or password is wrong”), click the icon for the camera in the **Edit** column to open the **Edit IP Camera** menu. Use the edit window to correct and add the information about the camera. Note that in the edit window, the **Admin Password** is missing.



SECTION 2: INSTALLING THE SYSTEM

- To enter the camera password, click the **Admin Password** field, then use the soft keyboard to click in the password of the camera, click the **Enter** key, and then click **OK** to close the window.



- In the screen shown above, notice that the icon in the Status column changed to a round, blue icon with a "▶" symbol. Click this icon to display live video from the camera. Verify that the video is being played acceptably.

To make configuration changes to the IP camera you added, use Microsoft Internet Explorer to log into the camera directly and use the configuration menus to modify parameters.

2.7.2 Adding analog (CCTV and HD-TVI) cameras to the DVR

To add analog cameras to the DVR, connect the video cable from the camera to a BNC connector on the back panel. When the DVR senses the video, the camera is automatically added to the system. **NOTE:** when adding cameras to the DVR, do not exceed the channel capacity of the DVR.

2.7.3 Configure analog cameras - basic adjustments

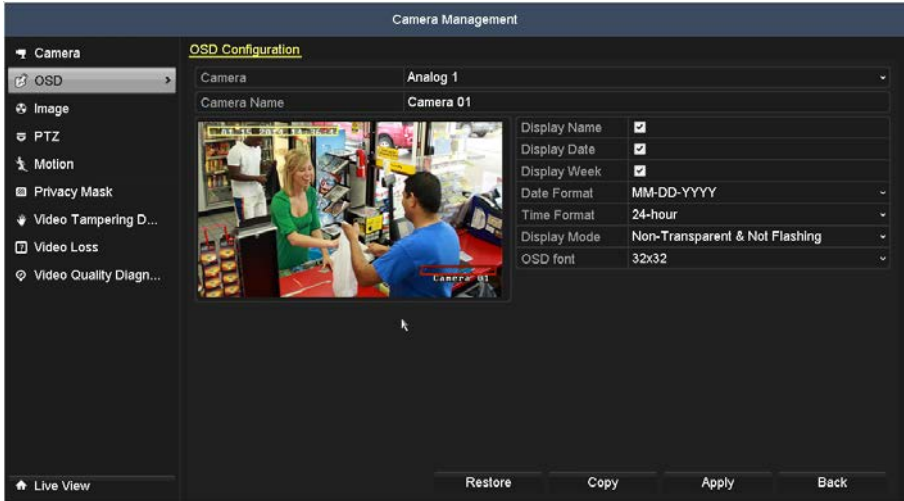
Basic configuration adjustments for analog cameras include setup of the OSD (On Screen Display) labels on the video image, Image settings (brightness, contrast, etc.), setting Motion detection zones, and setting Privacy zones.

OSD setup

Using the Camera OSD submenu, you can apply labels to the video image from your cameras to easily identify the camera, timestamp, etc.

To apply OSD labels to the video image:

1. Open the **Camera OSD** menu. Go to **Main menu | Camera | OSD**



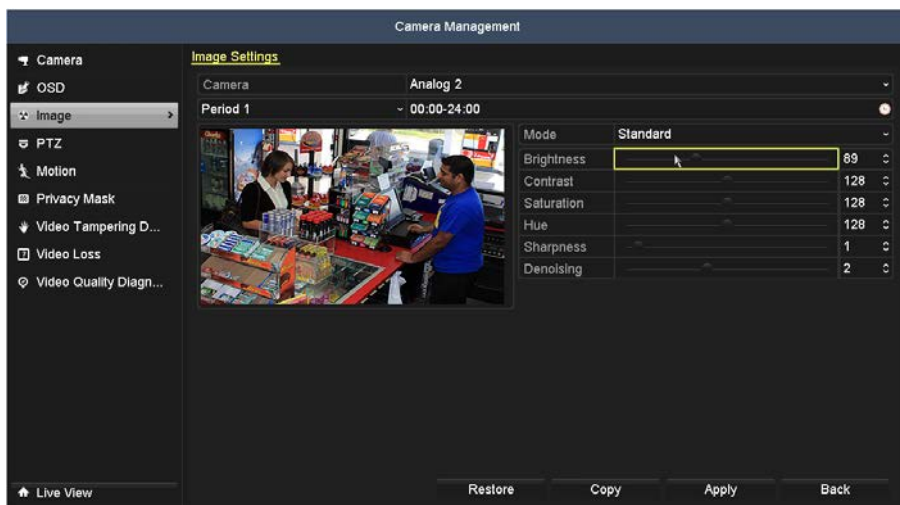
2. In the screen shown above:
 - a. On the **Camera** line, open the drop down list and select the camera you want to configure.
 - b. On the **Camera Name** line, click on the line to open the soft keyboard to edit the name. Click the **Enter** key to close the keyboard.
 - c. On the **Display Name**, **Display Date**, and **Display Week** lines, check the boxes as needed to enable those fields on the video display.
 - d. On the **Date Format**, **Time Format**, and **Display Mode** lines, open the drop-down lists and select the options you prefer.
 - e. On the **OSD font** line, open the drop-down list and select the font size for the OSD labels.
 - f. Use the mouse to drag the labels to the best positions on the video image.
 - g. Click **Apply** to save your settings for the camera.
 - h. On the **Camera** line, open the drop down list and select a different camera you want to configure.
 - i. Repeat steps **2.a** through **2.h** above until the OSD for all analog cameras are setup.

Image setup

Using the **Camera Image** submenu, you can adjust several aspects of the image (brightness, contrast, etc) to improve the visual quality of the video. You can configure two different camera image setups to adjust the camera for two different lighting conditions, such as day and night.

To adjust the image quality:

1. Open the Camera OSD menu. Go to **Main menu | Camera | Image**



2. In the screen shown above:
 - a. On the **Camera** line, open the drop down list and select the camera you want to configure.
 - b. On the **Period** line, open the drop-down list and select either Period 1 or Period 2, and then click the time to the right to set the time span for the adjustments. **NOTE:** Time spans for Period 1 and Period 2 cannot overlap.
 - c. Open the **Mode** drop-down list and select either **Standard**, **Indoor**, **Dim Light**, or **Outdoor** to apply preset video adjustments to the camera. You can also modify those adjustments as described below.
 - d. On the **Brightness**, **Contrast**, **Saturation**, **Hue**, **Sharpness**, and **Denoising** lines, use the mouse to move the sliders, or click the up and down arrows on the right, to perfect the video image.
 - e. Repeat steps **2.b** through **2.d** above to setup the other time period as needed.

- f. Repeat steps **2.a** through **2.e** above for a different analog camera until the video images of all analog cameras is configured.

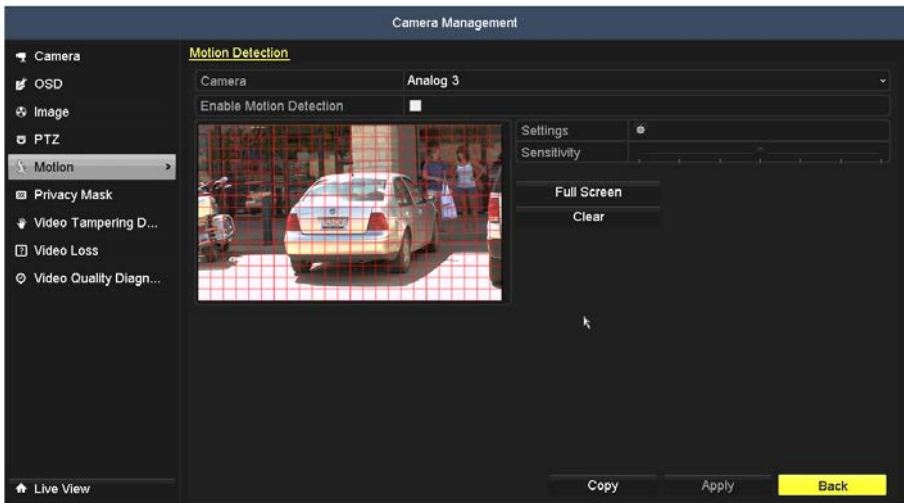
Motion setup

When using motion detection recording, the DVR initially senses for motion everywhere in the video image. You can configure the DVR to sense for motion in the camera video channel only in specific areas of the video, which is more efficient for the DVR.

The Motion setup menu shows the video image from a camera with a grid covering the area(s) of the video image it is sensing for motion. When motion is detected in a cell of the grid, that cell is filled. With this feature, you can adjust the sensitivity of the motion detection parameters to detect (or not detect) motion in the video image.

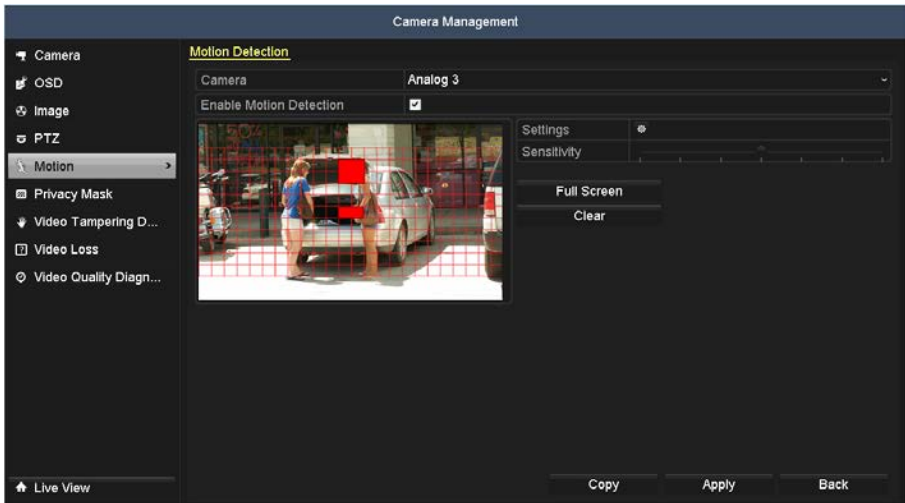
To adjust the motion detection parameters of a video channel:

1. Open the Camera Motion menu. Go to **Main menu | Camera | Motion**

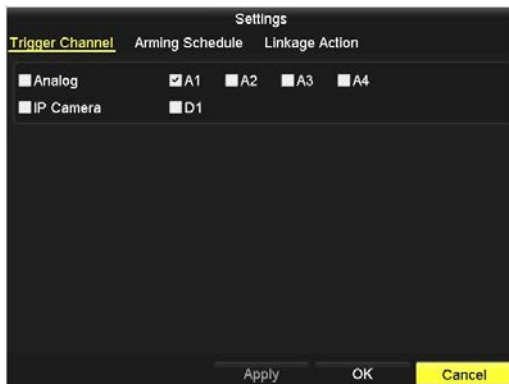


2. To change the motion detection settings for a camera:
 - a. On the **Camera** line, open the drop down list and select the camera you want to configure.
 - b. On the **Enable Motion Detection** line, click the box to check mark it.
 - c. To change the area of the video image you want to sense for motion, click the **Clear** button, then drag the mouse across the area of the video where you want to sense for motion. An example of the result is shown below.

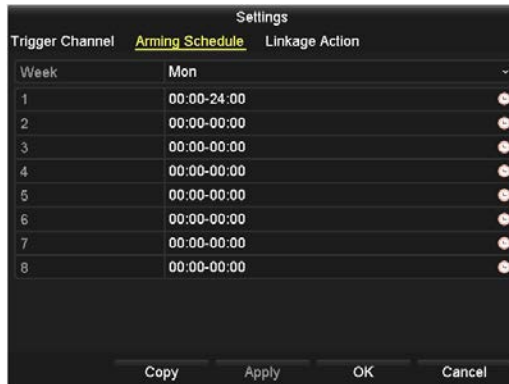
SECTION 2: INSTALLING THE SYSTEM



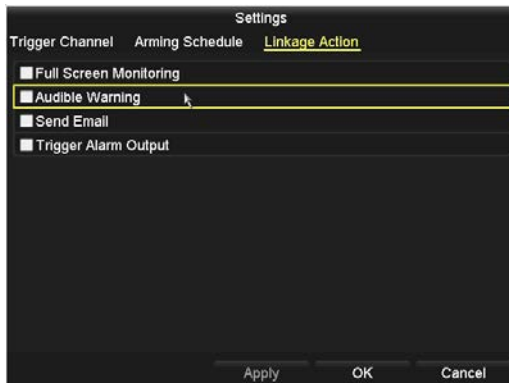
- d. In the screen shown above, notice that motion is detected in the cells of the grid where motion was sensed. You can adjust the sensitivity slider as needed for more or less detection sensitivity.
- e. Click the **Settings** icon.



- f. In the Settings **Trigger Channel** window, select the other channels that should trigger recording on this channel, then click **Apply** to save your settings.
- g. Click the **Arming Schedule** tab. With the Arming Schedule, you can define a schedule with up to eight periods for each day when motion detection is monitored. Time periods cannot overlap.



- h. Click **Apply** to save the settings. You can also click Copy to copy the Arming Schedule setup in the window to other days of the week.
- i. Click the **Action** tab. In the Action tab, you can cause certain actions to occur when motion triggered recording occurs.



- j. Select the actions you want to occur, then click **Apply** to save your settings, and **OK** to return to the Motion Detection menu.

NOTES: The **Notify Surveillance Center** and **Send Email** options require additional network settings. See "SECTION 7 Network Settings" on page 101 for more information.

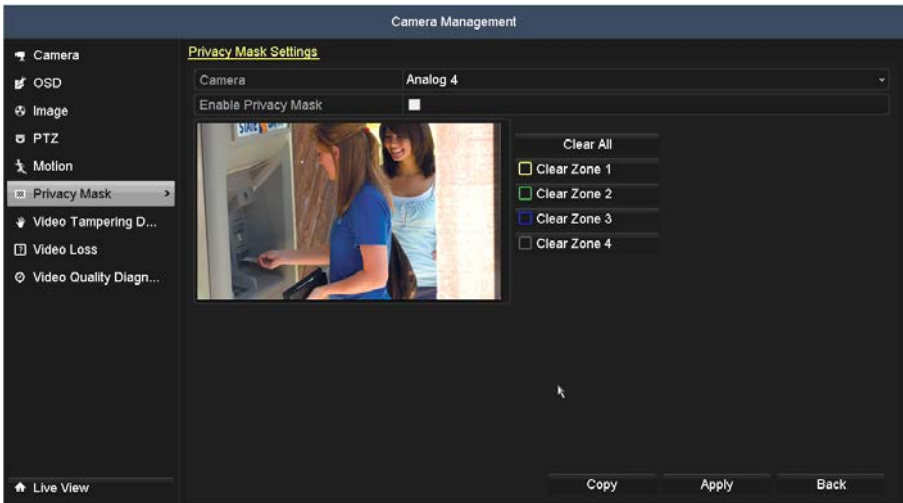
- k. Repeat step **2.a** above for a different camera, then repeat steps **2.b** through **2.j** to setup motion detection for that camera. Repeat this step until all analog cameras are configured as needed.

Privacy Mask setup

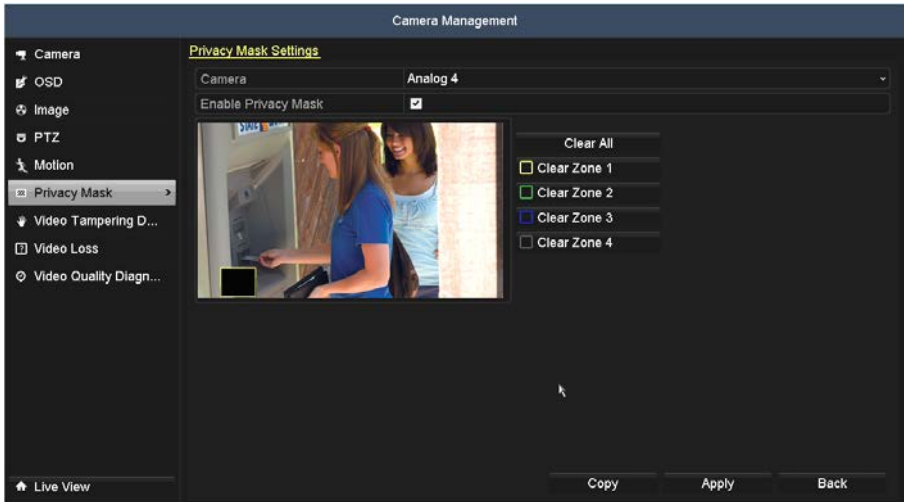
The Privacy Mask feature allows you to block areas (zones) of the video image for privacy consideration. The zones blocked will appear covered by a box in both live video and recorded video from the camera. You can define up to four privacy zones for each camera.

To block areas of the video image for privacy:

1. Open the Camera Motion menu. Go to **Main menu | Camera | Privacy Mask**



2. To change the Privacy Mask settings for a camera:
 - a. On the **Camera** line, open the drop down list and select the camera you want to configure.
 - b. On the **Enable Privacy Mask** line, click the box to check mark it.
 - c. Using the mouse, drag a box over the area you want to block for privacy. In the example below, Zone 1 covers the ATM keypad.



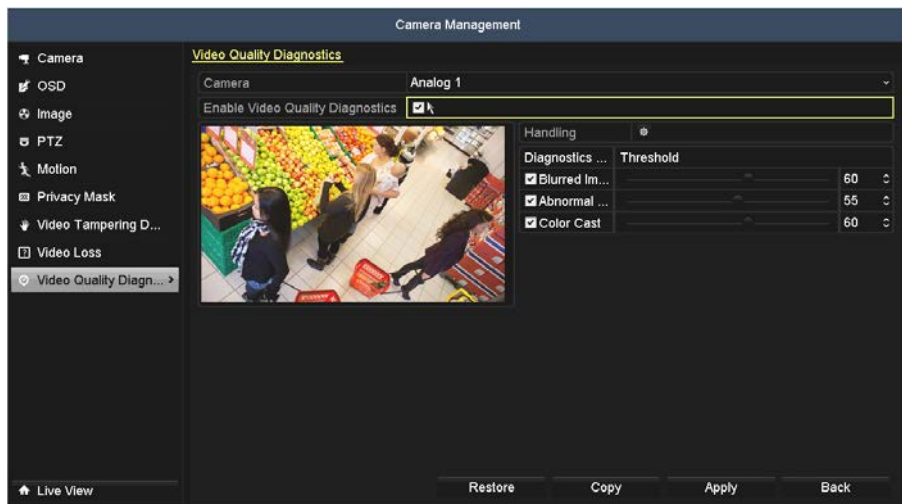
- d. Repeat the previous step to mask additional zones. You can define up to four privacy mask zones. To delete a zone, click the Clear Zone button associated with the zone you want to delete.
- e. Click **Apply** to save your settings for the camera you configured.
- f. Repeat step **2.a** above and select a different camera to configure, if needed.
- g. Repeat steps **2.b** through **2.e** until all cameras are configured as needed.

2.8 Video Quality Diagnostics

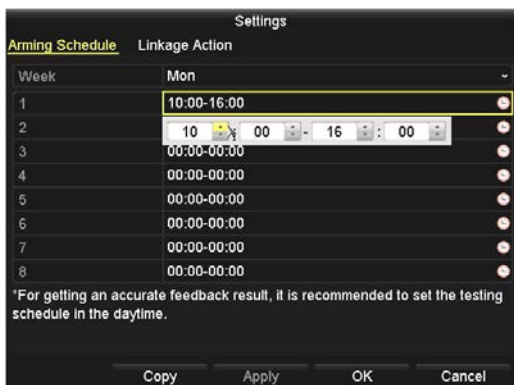
The video quality of analog cameras can be quickly analyzed using the Video Quality Diagnostics feature. This feature allows you to configure thresholds for Blurred Image, Abnormal Brightness, and Color Cast and configure the DVR to perform actions on a schedule when these aspects are above threshold. These thresholds should be set for a schedule when the camera is in normal operation with a near constant light level.

To adjust the Video Quality thresholds of a video channel:

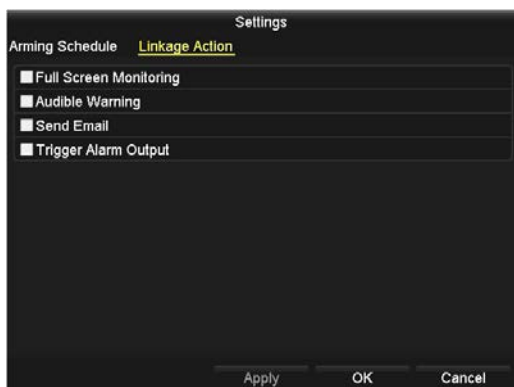
1. Open the Video Quality Diagnostics menu. Go to **Main menu | Camera | Video Quality Diagnostics**



2. To setup the video quality thresholds for a camera:
 - a. On the **Camera** line, open the drop down list and select the camera you want to configure.
 - b. On the **Enable Video Quality Diagnostics** line, click the box to check mark it.
 - c. Adjust the thresholds for the Blurred Image, Abnormal Brightness, and Color Cast aspects as needed. You can test your settings using the manual Video Quality Diagnostics below.
 - d. Click the icon on the **Handling** row.
 - e. Click the **Arming Schedule** tab. With the Arming Schedule, you can define a schedule with up to eight periods for each day when Blurred Image, Abnormal Brightness, and Color Cast aspects are monitored.



- f. After setting up the schedule for one day, you can click the **Copy** button to copy the schedule to other days of the week. Click **Apply** to save your settings, and then click the **Linkage Action** tab.



- g. Select the actions you want to occur, then click **Apply** to save your settings, and **OK** to return to the Video Quality Diagnostics menu.

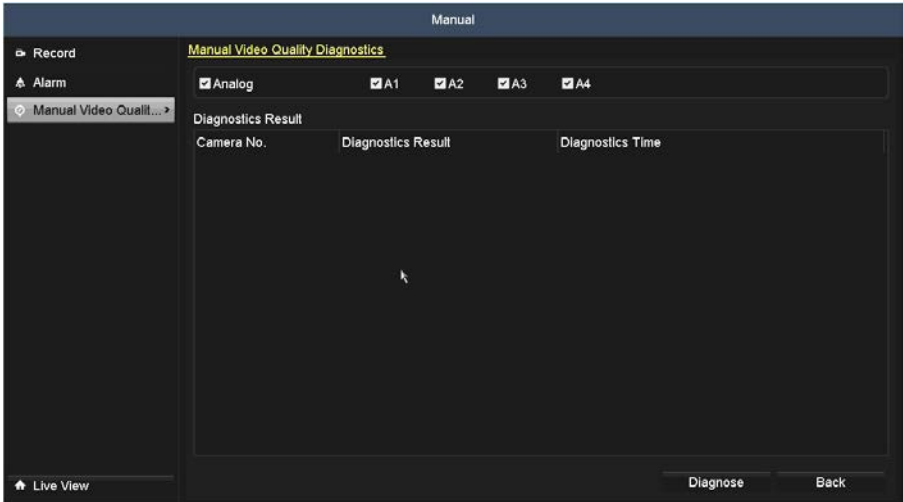
NOTES: The **Notify Surveillance Center** and **Send Email** options require additional network settings. See "SECTION 7 Network Settings" on page 101 for more information.

- h. Repeat step **2.a** above for a different camera, then repeat steps **2.b** through **2.g** to setup video quality diagnostics for that camera. Repeat this step until all analog cameras are configured as needed.

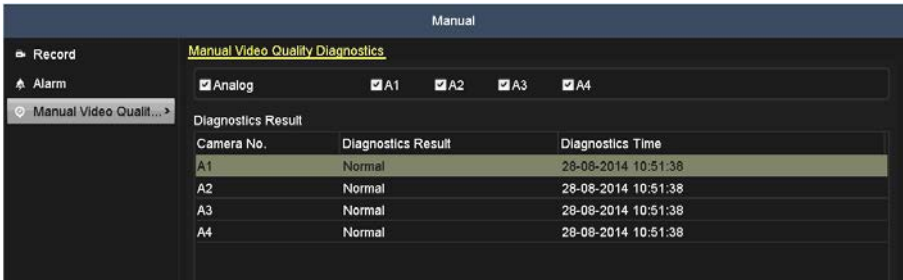
2.8.1 Check video quality manually

After configuring video quality thresholds using the **Video Quality Diagnostics** menu, you can check your settings using the **Manual Video Quality** menu. To use this menu:

1. Open the manual Video Quality Diagnostics menu. Go to **Main menu | Manual | Manual Video Quality Diagnostics**



2. On the Analog line, check mark the boxes for the cameras you want to diagnose.
3. Click the **Diagnose** button at the bottom of the window. The results of the of the test are shown in the window.



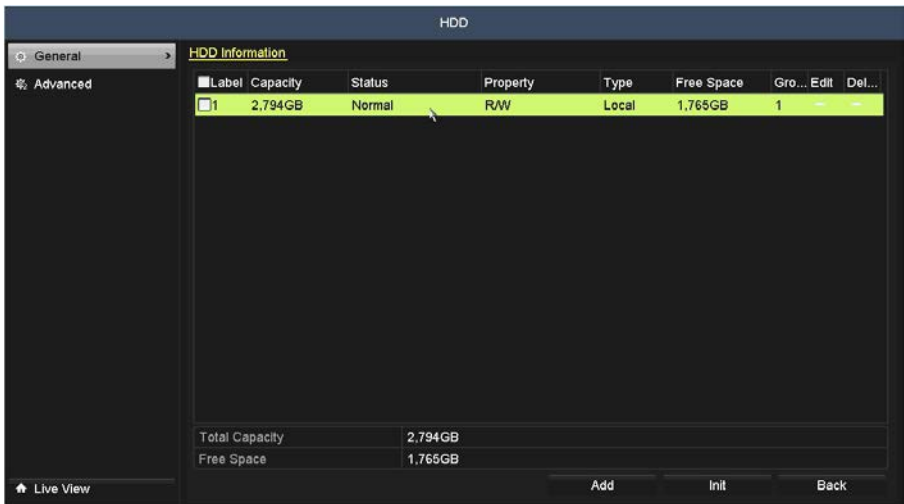
4. If the Diagnostic Result for any camera is other than **Normal**, check the camera to resolve the condition if needed.

2.9 Configuring HDD settings

2.9.1 Checking HDD status

Check the status of the HDD installed in the DVR to assure it is functioning normally.

1. Open the HDD Information display. Go to **Menu | HDD | General**



2. Check the status of the HDD. If the status is:
 - **Normal** or **Sleeping** – The HDD is working normally.
 - **Uninitialized** or **Abnormal** – Initialize the HDD before continuing. Check the select box of the HDD to initialize, then click the **Init** button at the bottom of the screen.
 - **Failed** – If the HDD failed during or after initialization, replace the HDD.

2.9.2 Network Storage

The **Add** button on the HDD Information screen (see “2.9.1 Checking HDD status” on page 37 above) will be used to add additional network storage devices (NAS or IP SAN) to the recorder. This feature is reserved for future enhancement.

2.9.3 Configuring the HDD

By default, all cameras will record to the one partition of the internal HDD. However, you can configure the partition to allocate a set portion of the partition to each of the recordings of each camera. If multiple disks (internal HDD and network drives) are installed, individual cameras or groups of cameras can be configured to save their recordings to assigned areas on those drives.

SECTION 2: INSTALLING THE SYSTEM

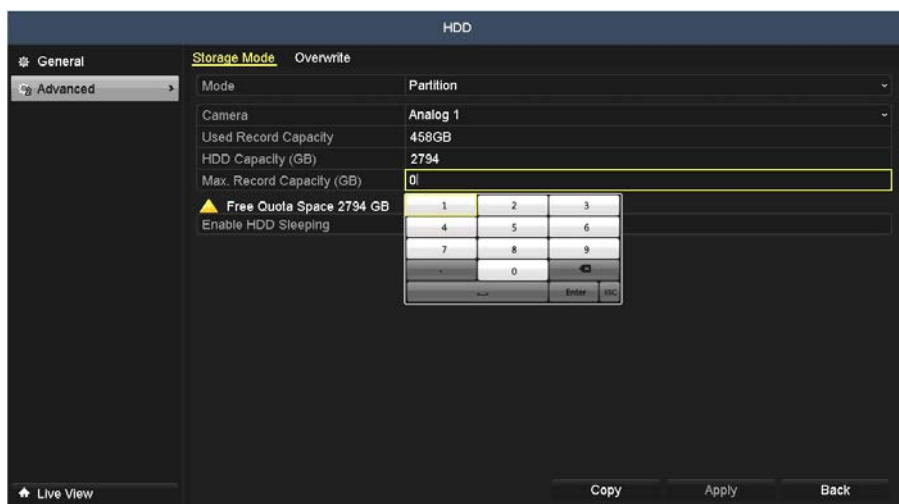
Before you start:

1. Make sure that an HDD is installed. If not, install a HDD and initialize it. Go to **Menu | HDD | General**.



Label	Capacity	Status	Property	Type	Free Space	Gro...	Edit	Del...
1	2.794GB	Normal	RAW	Local	1.765GB	1	—	—

2. Click **Advanced** to check the storage mode of the HDD.
 - a. If the HDD mode is Group, you can select a group of cameras to record to that HDD. See “2.9.4 Configuring HDD Group mode” on page 39 for more information.
 - b. If the HDD mode is **Partition**, you can set the maximum recording capacity for each camera in the DVR:
 - i. On the Camera line, open the drop-down list and then select the camera you want to set a maximum recording capacity to.
 - ii. Click the Max. Record Capacity field, and then enter the size in GB of the space on the disk you want to allocate to the camera you selected.



HDD

General | **Advanced**

Storage Mode | Overwrite

Mode: Partition

Camera: Analog 1

Used Record Capacity: 458GB

HDD Capacity (GB): 2794

Max. Record Capacity (GB): 0

Free Quota Space 2794 GB

Enable HDD Sleeping

1 2 3

4 5 6

7 8 9

0 Enter ESC

Live View | Copy | Apply | Back

- iii. Click apply to save the setting.
- iv. Repeat steps **2.b.i** through **2.b.iii** for each camera in the system.

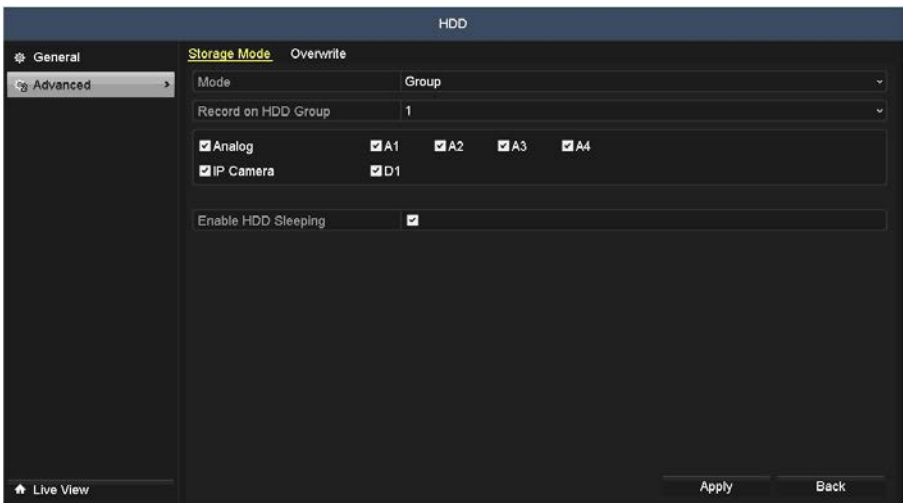
2.9.4 Configuring HDD Group mode

For systems with multiple disk storage drives (ALI-HVR3016H only) a recording data from group of cameras can be written to a specific to ach camera can be configured with an allocated quota for the storage of recorded files. After making configuration changes to the Storage Mode menu (see below), the DVR must be restarted for new settings to be applied. **NOTE:** Example screens shown in this section do not include multiple HDDs.

1. Open the Storage Mode menu. Go to **Menu | HDD | Advanced**



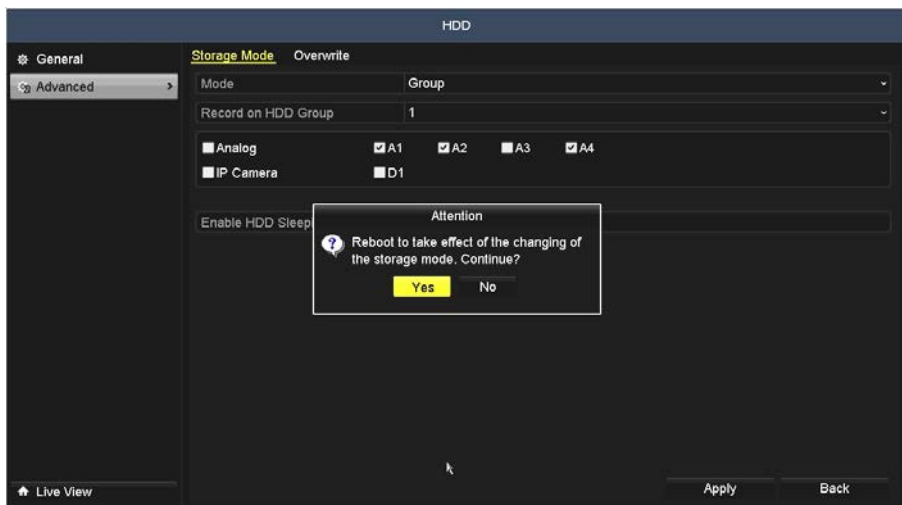
2. On the **Mode** line, open the drop down list and select **Group**.
3. On the **Group** line, open the drop down list and select the group number you want to create.



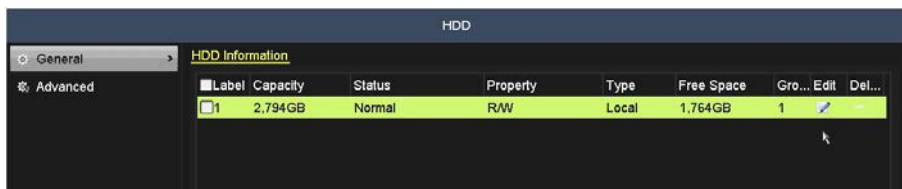
4. Select the analog and IP cameras you want to assign to the group. (Deselect the cameras that are not part of the group.)

SECTION 2: INSTALLING THE SYSTEM

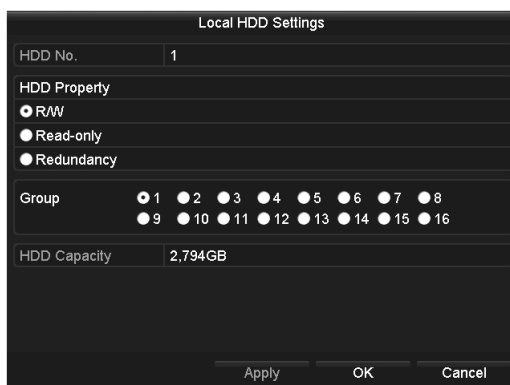
- Click **Apply**, and then click **Yes** in the Attention pop-up window to reboot the DVR.



- After the DVR reboots, open the HDD Genera menu. Go to **Main menu | HDD**



- On the entry for the HDD, click the **Edit** icon. The **Local HDD Settings** window will open.



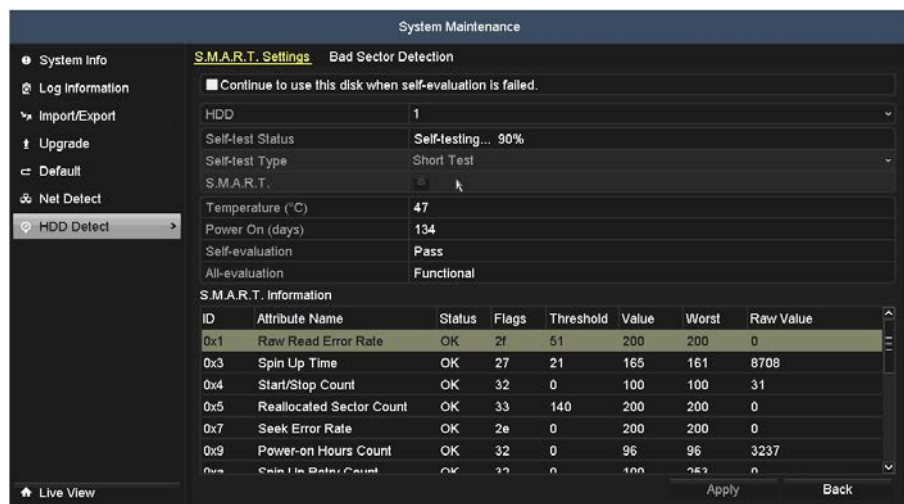
- In the window shown above, select the **Group** number you want to assign to the HDD, then click **OK**.

2.9.5 HDD Detect

The **HDD Detect** feature provides two methods of monitoring the HDD: display of **S.M.A.R.T.** (Self-Monitoring, Analysis and Reporting Technology) data, and **Bad Sector Detection**. These methods can be used to assure the normal functioning of the disk, and anticipate failures.

S.M.A.R.T. Display

- Open the S.M.A.R.T. display menu. Go to **Maintenance | HDD Detect**



SECTION 2: INSTALLING THE SYSTEM

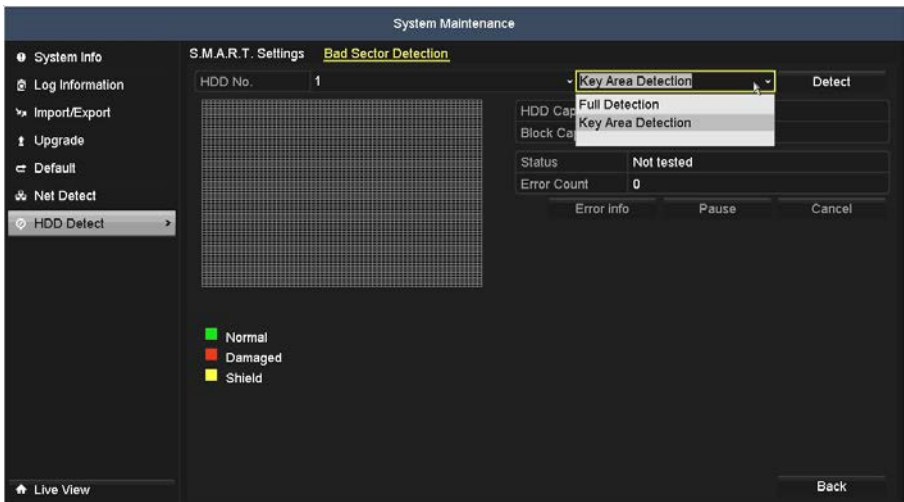
2. To execute a self-evaluation test on an HDD (see above):
 - a. On the **HDD** line, open the drop down list to select the HDD to test.
 - b. On the **Self-test Type** line, open the drop down list to select the type of test to execute. You can choose either Short Test, Expanded Test or Conveyance Test.
 - c. Click the icon on the **S.M.A.R.T.** line to execute the test. Allow the test to complete before continuing. The test status is shown above, and the result of the test is shown on the Self-evaluation line.
3. Examine the S.M.A.R.T. data provided for the HDD. Check to ensure that the data in the value and Worst column does not exceed the data in the Threshold column.

NOTE

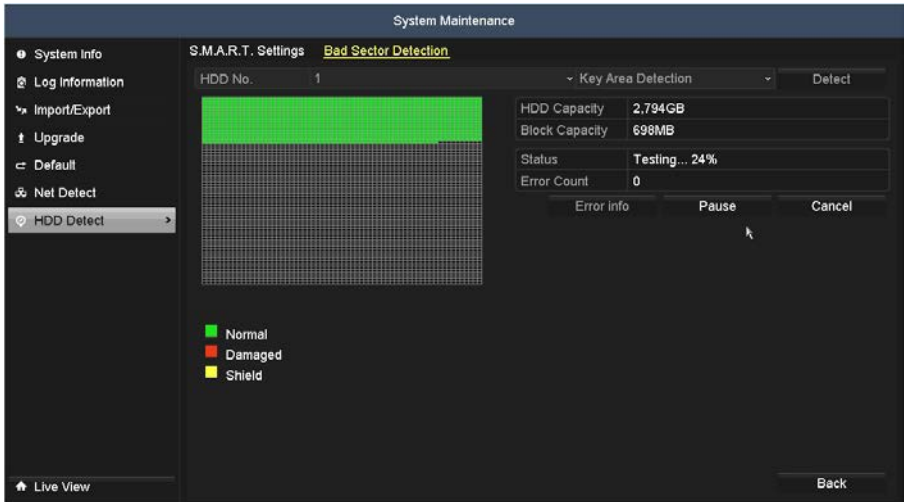
S.M.A.R.T. data provided by each HDD manufacturer is usually different. Refer to the manufacturer's website for S.M.A.R.T. data definitions.

Bad Sector Detection

1. Open the Bad Sector Detection menu. Go to **Main menu | Maintenance | HDD Detect | Bad Sector Detection**
2. On the **HDD No.** line, open the drop down list and select the number of the HDD you want to test.
3. Open the drop-down list to the right of the **HDD No.** select and then click the test you want to execute.



- Click the **Detect** button to start the detection. Bad sectors are identified in the array as red colored cells. The screen below shows the **Key Area Detection** test executing.



Click **Pause** to temporarily stop the scan, and click **Cancel** to end the scan.

Click **Error info** (if errors were found) to see the “Damaged” information.

2.10 Configuring Exception Alarms

The DVR monitors for and respond to certain system-related alarm conditions (exception alarms). Monitoring for and response to these exceptions are configurable.

Exception alarm conditions include:

- **HDD Full:** The HDD is full.
- **HDD Error:** Writing HDD error or unformatted HDD.
- **Network Disconnected:** Disconnected network cable.
- **IP Conflicted:** Duplicated IP address.
- **Illegal Login:** Incorrect user ID or password.
- **Input/Output Video Standards Mismatch:** I/O video standards do not match.
- **Record Exception:** No space exists for saving recorded files.
- **Trigger Alarm Output:** Not used.

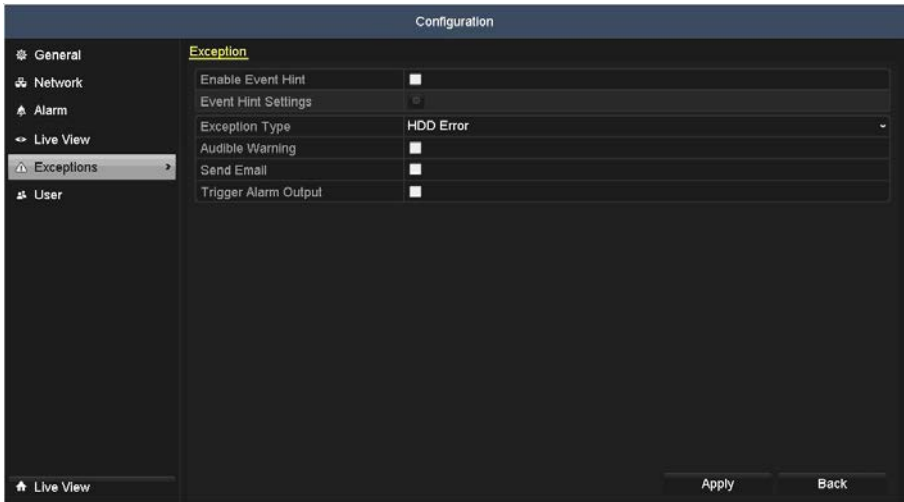
SECTION 2: INSTALLING THE SYSTEM

Responses to exception alarms include:

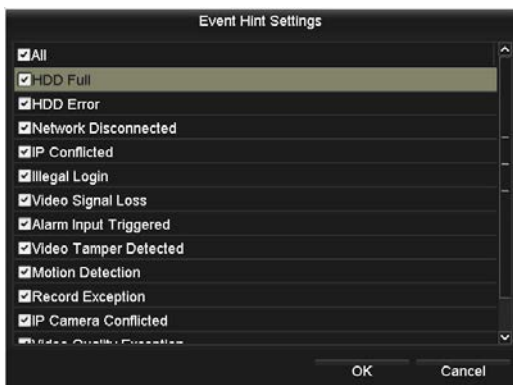
- **Audible Warning:** Trigger an audible beep when an alarm is detected.
- **Send Email:** Send an email with alarm information to a user or users when an alarm is detected.

To configure exception alarms:

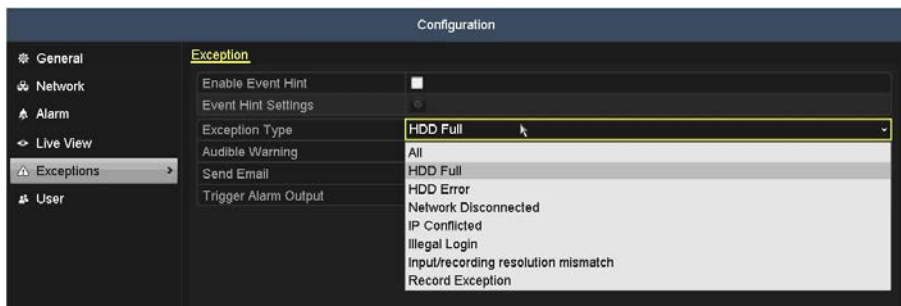
1. Open the **Exception** menu. Go to **Main menu | Configuration | Exceptions**



2. Check the box on the **Enable Event Hint** line to enable this feature. With feature, when an Even/Exception icon appears on the Live View video window, you can click on this icon to display a detailed event hint information for the condition.
 - a. If this feature is selected, click the **Settings** icon below to select the events for which the Event Hint information will appear.



- On the **Exception Type** line, open the drop down list and select the exception condition you want to configure. If you select **All**, all exception conditions will be treated the way you configure the response.



- Select either or both of the following response options: **Audible Warning** or **Send Email**.
- Click **Apply** to save your settings.
- Repeat these steps **3** through **5** for another Exception Type you want to configure.

SECTION 3

Startup, Shutdown, Reboot

After the DVR and cameras are installed, the DVR system must be configured to function in the surveillance mode(s) that best serve your needs. This chapter includes the essential steps to get your system running, including configuring the DVR date and time, and setting up the LAN interface, cameras and recording modes. Advanced features, including remote access, video export, adding user names and setting user permissions, etc. are described in later sections of this manual.

3.1 Starting Up, Shutting Down and Rebooting the DVR

3.1.1 Startup

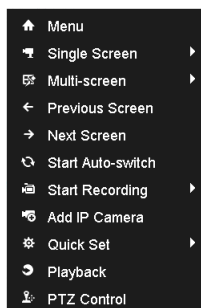
Proper startup and shutdown procedures are essential for getting the most out of your DVR. To startup:

1. Check the power cable is plugged into a standard electrical outlet. It is HIGHLY recommended that an Uninterruptible Power Supply (UPS) be used in conjunction with the device.
2. Rock the **POWER** switch on the back panel to the on ("I") position. The Power indicator LED on the front panel should turn green indicating that the unit is powered on.
3. After startup, the Power indicator LED remains green. A splash screen will appear on the monitor.

3.1.2 Shutdown

To shut down the DVR:

1. Right click anywhere on the desktop to open the pop-up window, then select **Menu**.



2. If a **Login** window opens, select a User Name with administrative privileges, enter the appropriate Password, then click **OK**.

NOTE The default User Name with administrative privileges and its associated Password are **admin** and **1111**.

3. In the **Menu** window, click the **Shutdown** icon, then click **Shutdown** in the pop-up window.



4. Click **Yes** in the **Attention** window.
5. When the message **Please power off!** appears, rock the power switch on the back panel to the off ("0") position.

3.1.3 Rebooting the DVR

In the Shutdown menu, you can also reboot the DVR.

1. Open the Shutdown menu by clicking **Menu | Shutdown**.
2. In the **Menu** window, click the **Shutdown** icon, then click **Reboot** in the pop-up window.



3. Click **Yes** in the **Attention** window.

SECTION 4

Live View Interface



The Live View interface is the primary camera viewing and monitoring mode. It can be configured to present video from the cameras configured in the system singularly or in multi mode, or using a “patrol” feature wherein video from each of a select group of cameras is displayed singularly and sequentially, with each camera view shown for a preset duration (dwell). The Live View screen can be configured to display 1, 6 or 8 camera channels concurrently, or playback recorded video.





*Live View 2 * 2 multi-screen display*

Each camera channel displayed on the Live View screen may contain one or both status icons in the upper-right corner of the viewing frame.

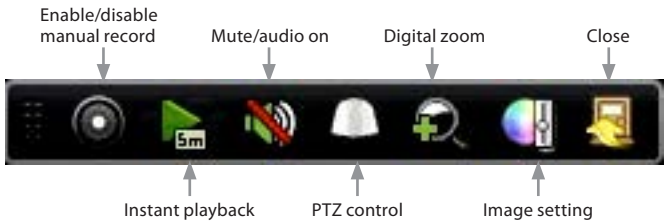
Live View Status icons

Icon	Type	Reason
	Alarm	Video loss, tampering, motion detection or sensor alarm
	Record	Manual record, schedule record, motion detection or alarm triggered record

Icon	Type	Reason
 	Record and Alarm	Both alarm and record status

4.1 Quick Setting Toolbar

Left-clicking the mouse on a viewing frame opens a Quick Setting Toolbar at the top or bottom of the frame.



Instant Playback: Plays what was recorded in the previous five minutes. Nothing is played if a recording was not made at that time.

PTZ Control: PTZ control is not supported.

Digital Zoom: Shows the selected portion of the camera image in full-screen mode. To select an area, left-click and drag to form a rectangle across the area to expand. See the figure below.

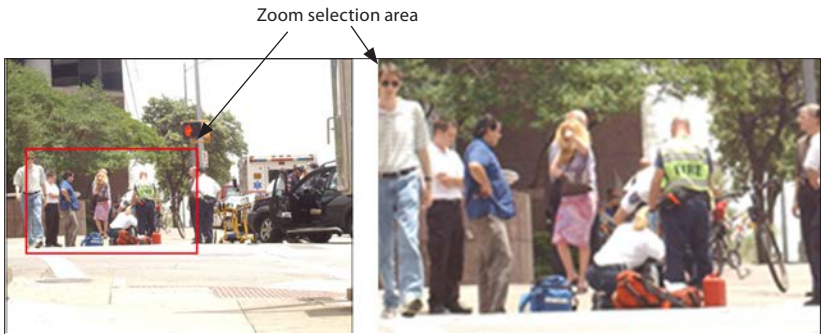
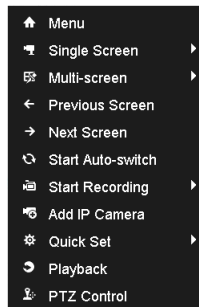


Image Settings: Click this icon to open menus for creating customized setting for the brightness, contrast, saturation, hue, sharpness and noise reduction of the camera image. You can configure different settings for each of two periods, use preset settings, and/or configure settings manually. After making an adjustment on in this menu, the DVR will respond within a few seconds. Click **OK** when your adjustments are complete.



4.2 Live View pop-up menu

Right-clicking the mouse on the desktop opens the pop-up window shown below.



Clicking one of the items listed produces the result described below.

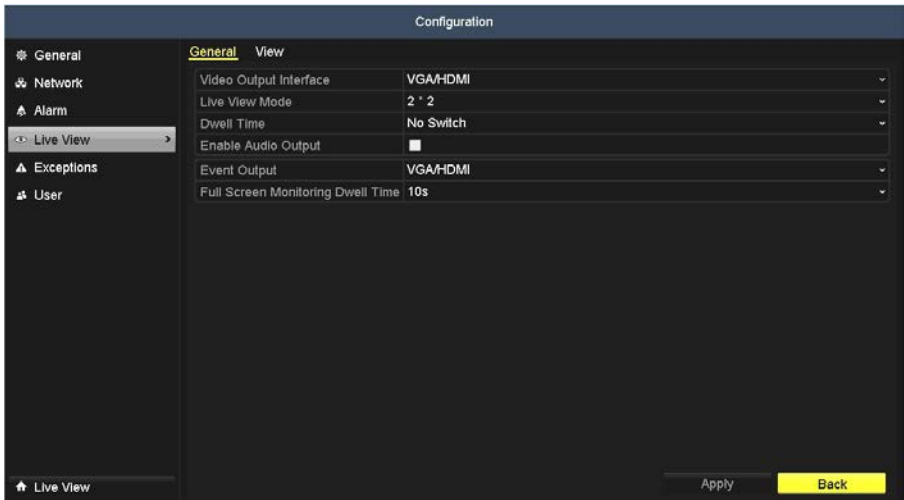
- **Menu:** Opens the configuration menu window. See “SECTION 5 Record, Playback and Video Backup” on page 53.
- **Single Screen:** showing only one camera channel on the monitor. Open the drop-down list to select the camera channel you want to view.
- **Multi-screen:** opens a submenu where you can choose from several multi-channel screen configurations, including 2*2, 1+5, 1+7, 3*3, in multi-screen mode, you can view video from multiple camera channels simultaneously.
- **Previous screen:** Move to the screen displayed previously.
- **Next screen:** Move to the screen displayed after the current one.
- **Start Auto-switch:** the screen is automatically switched from one camera channel to the next. You must set the dwell time before enabling auto-switch. Go to **Menu | Configuration | Live View | Dwell Time**.
- **Start Recording:** Select **Normal Record** and **Motion Detection** record from the drop-down list.
- **Quick Set --> Output Mode:** opens a menu where you can select the output mode to **Standard**, **Bright**, **Gentle** or **Vivid**. Select the option that produces the best looking screen.

- **All-day Playback:** Opens a playback menu where you can playback video recorded at a specific time of the day. In If in Multi-screen mode, double-click on the viewing frame of the camera recording video you want to replay, then select All-day Playback. A marker on the timeline shows the time recording being played back was made.
- **Aux Monitor:** Switch to the auxiliary output mode (CVBS). The operation of the main output is disabled.

4.2.1 Live View settings

Live View settings can be customized according to differing needs. You can configure the screen frame split, placement of camera channels on the screen, dwell time for screen to be shown, mute or turning on the audio, the screen number for each channel, etc.

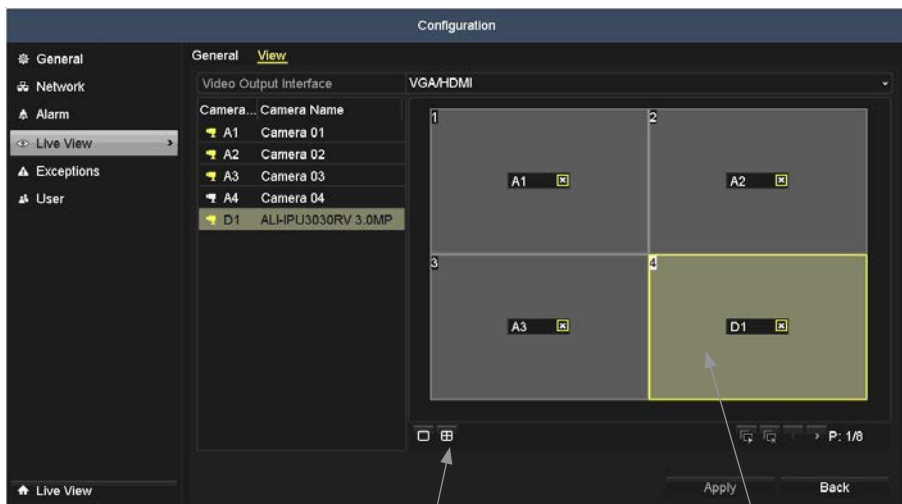
1. Open the Live View Settings menu. Go to **Menu | Configuration | Live View**



Adjust the settings in the screen as needed:

- **Video Output Interface:** Designates the output to configure the settings for. Option includes only VGA/HDMI.
 - **Live View Mode:** Designates the display mode (screen split) to be used for Live View.
 - **Dwell Time:** The time in seconds to dwell between switching channels when auto-switch is enabled in Live View.
 - **Enable Audio Output:** Enables/disables audio output for the selected video output.
 - **Event Output:** Designates the output to show event video. Option includes only VGA/HDMI.
 - **Full Screen Monitoring Dwell Time:** The time in seconds to show alarm event screen.
2. After changing settings in the screen shown above, click the **Apply** button at the bottom of the screen, and then click **Back**.
 3. Click the **View** tab at the top of the screen.

SECTION 4: LIVE VIEW INTERFACE



Single-, multi-screen select icons

Viewing screens

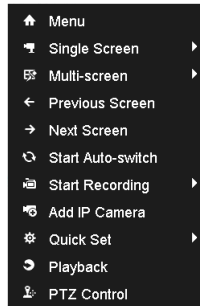
4. Click the single- or multi-screen select icon for the screen split you prefer. In the example shown above, a 2*2 screen is selected.
5. Click an item in the **Video Output Interface** column, and then click the Viewing Screen where you want the video image to appear. In the example above, the D1 ALI-IPU3030RV item was placed in the viewing screen in the lower right corner.
6. Click the **Apply** button to save your setting.

SECTION 5

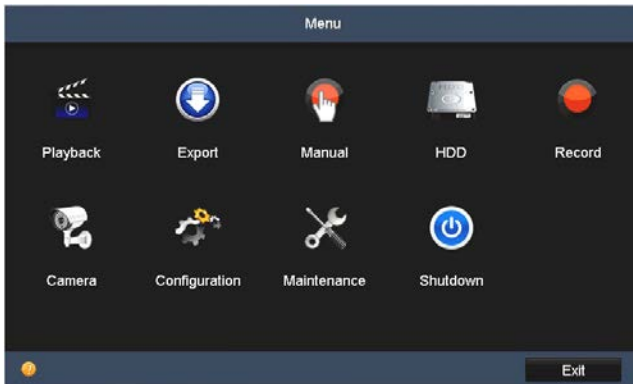
Record, Playback and Video Backup

After the initial setup of your DVR using the Wizard, the Menus interface enables you to refine your configuration settings and expand the functionality of the system. To use most menus, the user must log into the DVR system, either locally or remotely, with administrative privileges.

To open the Menu system from the Live View screen, right click anywhere in the screen, then select **Menu**.



After selecting **Menu**, a login window will open. In the Login window, select a User Name with administrative privileges, enter its password, then click **OK**. A window of Menu icons will open. **NOTE:** When the system option **Enable ID Authentication** is disabled (see the **Configuration - General** settings submenu), the Login window to open the Menu does not appear.



5.1 Configuring record settings

5.1.1 Setting camera Record Parameters

In the Record Parameters screen you can configure the camera performance for Mainstream (Continuous) and Mainstream (Event) recording. Each camera video channel also includes a substream channel that is configured separately.

1. Enter the **Record** settings interface to configure the camera parameters. Go to **Menu | Record | Parameters**

The screenshot shows the 'Record' configuration screen for an analog camera. The interface has a dark theme. On the left, there is a sidebar with 'Schedule' and 'Parameters' (selected). The main area is titled 'Record' and has two tabs: 'Record' (selected) and 'Substream'. The 'Record' tab contains a list of settings for 'Camera' (Analog 1). The settings are as follows:

Parameter	Value	Substream Value
Input Resolution	1080P30	
Encoding Parameters	Main Stream(Continuous)	Main Stream(Event)
Stream Type	Video & Audio	Video & Audio
Resolution	1280*720(HD720P)	1280*720(HD720P)
Bitrate Type	Variable	Variable
Video Quality	Medium	Medium
Frame Rate	Full Frame	Full Frame
Max. Bitrate Mode	General	General
Max. Bitrate(Kbps)	2048	2048
Max. Bitrate Range Recommend...	2304~3840(Kbps)	2304~3840(Kbps)
Pre-record	5s	
Post-record	5s	
Expired Time (day)	0	
Record Audio	<input checked="" type="checkbox"/>	
Video Stream	Main Stream	

At the bottom of the screen, there are four buttons: 'Live View', 'Restore', 'Copy', 'Apply', and 'Back'.

2. Open the **Camera** drop-down list and select the analog or IP camera you want to configure. The screen shown above is for an analog camera, the screen below represents an IP camera.

The screenshot shows the 'Record' configuration interface for a DVR. The 'Record' tab is selected, and the 'Substream' configuration for 'IP Camera 1' is displayed. The configuration parameters are as follows:

Parameter	Value
Camera	IP Camera 1
Input Resolution	1280*720(HD720P)
Encoding Parameters	Main Stream(Continuous)
Stream Type	Video & Audio
Resolution	1280*720(HD720P)
Bitrate Type	Variable
Video Quality	Medium
Frame Rate	Full Frame
Max. Bitrate Mode	General
Max. Bitrate(Kbps)	4096
Max. Bitrate Range Recommend...	2304~3840(Kbps)
Pre-record	5s
Post-record	5s
Expired Time (day)	0
Record Audio	<input checked="" type="checkbox"/>

At the bottom of the interface, there are buttons for 'Live View', 'Restore', 'Copy', 'Apply', and 'Back'.

3. Set the Encoding Parameters (Stream type, Resolution, Max bitrate, etc.) for the Continuous and Event streams as needed for the camera. **NOTE:** If you are configuring an IP camera on a ALI-HVR3004H or ALI-HVR3008H, do not set the **Resolution** above **1280*720 (HD720P)**.
4. Select the **Record** tab page you want to configure. You can configure the stream type, the resolution, and other parameters.
 - **Pre-record:** The time you set to record before the scheduled time or event. For example, when an alarm triggered the recording at 10:00, if you set the pre-record time as 5 seconds, the camera records it at 9:59:55.
 - **Post-record:** The time you set to record after the event or the scheduled time. For example, when an alarm triggered the recording ends at 11:00, if you set the post-record time as 5 seconds, it records till 11:00:05.
 - **Expired Time:** The expired time is the duration a record file is kept in the HDD. When the duration ends, the file will be deleted. If the expired time is set to 0, the file will not be deleted. The duration a file should be kept on the HDD is determined by the capacity of the HDD.
 - **Redundant Record:** The redundant record is to decide whether you want the camera to save the record files in the redundant HDD. You must configure the redundant HDD in HDD settings. For detailed information, see Chapter 5.7 Configuring Redundant Recording.
 - **Record Audio:** Check the checkbox to record video with sound.
 - **Video Stream:** Main stream and sub-stream are selectable for recording. When you select sub-stream, you can record for a longer time with the same storage space..
5. Click **Apply** to save your new configuration settings.

NOTE

You can copy the settings to other cameras with same features. For example, if video channel 1-3 connect to HD-TVI cameras and channel 4 connects to a non-HD-TVI camera, you can copy the settings made for channel 1 to channel 2 and 3, but not to channel 4.

6. Repeat steps **2** through **4** for each camera installed on the system.
7. Open the **Sub-stream** tab page.

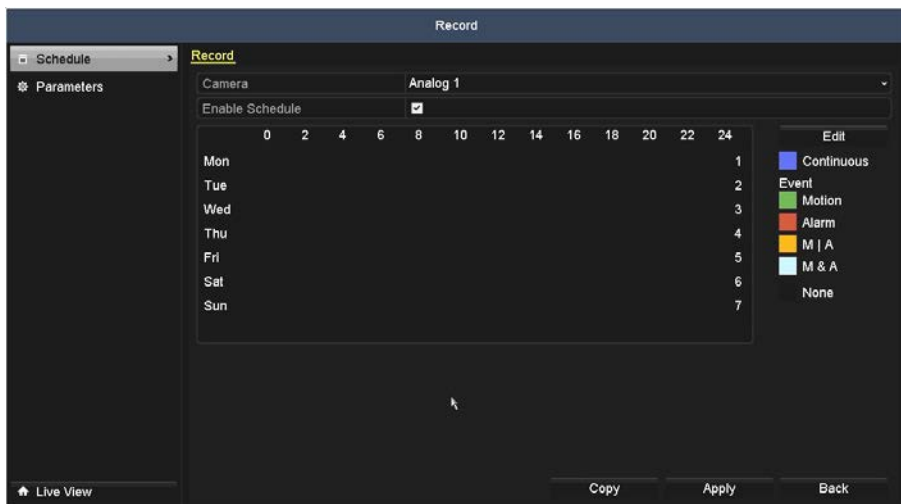


- a. Configure the sub-stream parameters for each camera as needed.
 - b. Click **Apply** to save the settings.
8. Repeat steps **2** through **5** above for each camera in the system.

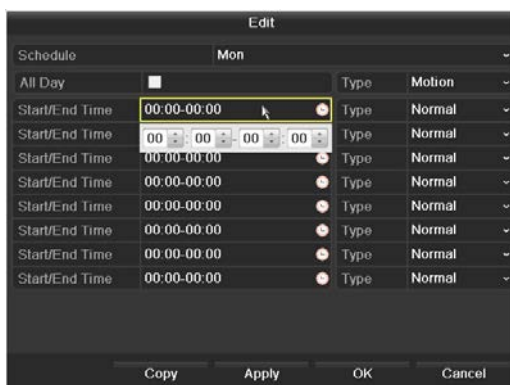
5.1.2 Configuring Record schedule

The record schedule can be used to automatically start and stops recording at preset times.

1. Open the Record Schedule menu. Go to **Menu | Record | Schedule**



2. To configure the Record schedule:
 - a. Open the **Camera** drop-down list to select the camera you want to configure.
 - b. Check the **Enable Schedule** box.
 - c. Click **Edit**, or use the graphical method to apply recording modes to hours of the day.
 - i. If you clicked the **Edit** button, a record schedule list opens.

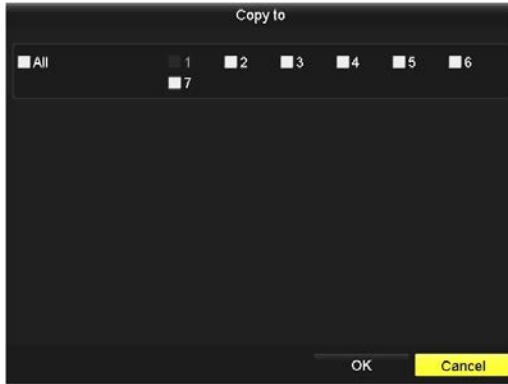


- Open the **Schedule** line drop down list and select the day you want to create a record schedule for.
- To schedule all-day recording, check the checkbox after the All Day item. To setup specific start and end times, click the clock icon to open a time setting popup window.
- In the **Type** column, select the type of recording trigger you want to use. “**Normal**” recording is continuous recording. “**Motion**” recording is recording triggered by some kind of motion detected in the video image.
- Click **Apply** to save your settings.

NOTE

You can define up to eight recording time periods for each day, each with a specified recording type. Recording time periods cannot overlap with each other. Each recording period can use either Normal or Motion triggered recording.

- Repeat the steps above to schedule recording for other days of the week. If the same schedule can also be applied to other days, click **Copy** (see the window below), select the days you want to copy the schedule to, then click **OK**.



- ii. To use the **graphical method** to draw the schedule:
 - In the right column, click the color icons for the type of recording you want to perform. You can choose either **Continuous**, **Motion**, **Alarm**, **M | A** (Motion or Alarm), **M & A**, or none.
 - Drag the mouse pointer across the area of the chart (day of the week, hours of the day) where you want to use that type of recording. Blocks on the chart, each representing 1 hour of one day, will be colored for the recording mode you selected.

In the example shown below, Continuous recording was scheduled from 7 AM to 6 PM, Monday through Friday. Motion recording was scheduled for all other times.



- Click **Apply** to save the settings.

3. If the settings can be applied to other camera channels, click **Copy**.



4. In the **Copy** menu, click the channels you want to copy the schedule to, then click **OK**.

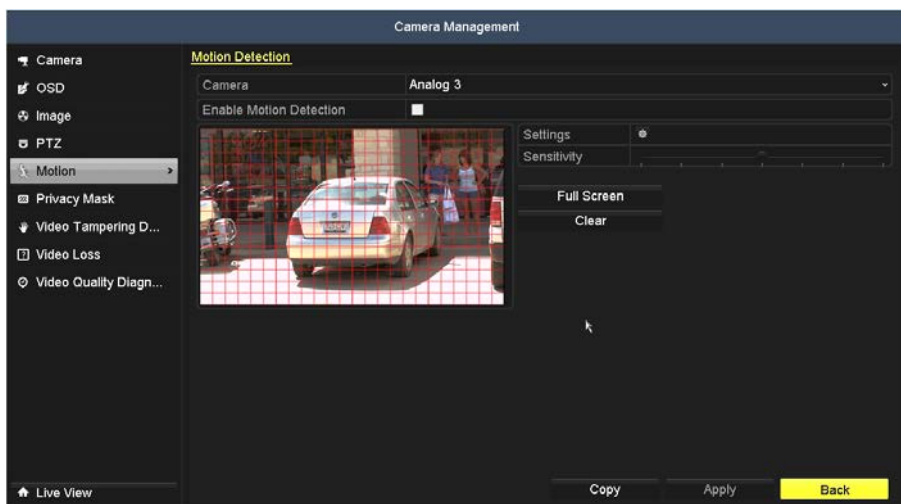
5.1.3 Configuring Motion Detection Recording

When using motion detection recording, the DVR initially senses for motion everywhere in the video image. You can configure the DVR to sense for motion in the camera video channel only in specific areas of the video, which is more efficient for the DVR.

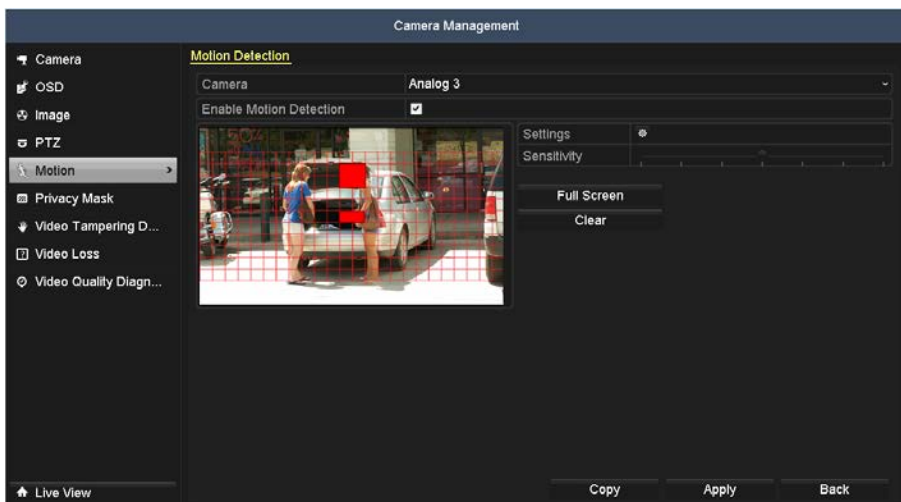
The Motion setup menu shows the video image from a camera with a grid covering the area(s) of the video image it is sensing for motion. When motion is detected in a cell of the grid, that cell is filled. With this feature, you can adjust the sensitivity of the motion detection parameters to detect (or not detect) motion in the video image.

To adjust the motion detection parameters of a video channel:

1. Open the Camera Motion menu. Go to **Main menu | Camera | Motion**



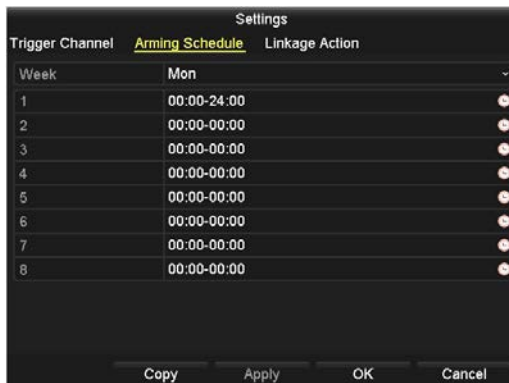
2. To change the motion detection settings for a camera:
 - a. On the **Camera** line, open the drop down list and select the camera you want to configure.
 - b. On the **Enable Motion Detection** line, click the box to check mark it.
 - c. To change the area of the video image where you want to sense for motion, click the **Clear** button, then drag the mouse across the area of the video where you want to sense for motion. An example of the result is shown below.



- d. In the screen shown above, notice that motion is detected in the cells of the grid where motion was sensed. You can adjust the sensitivity slider as needed for more or less detection sensitivity.
- e. Click the **Settings** icon.

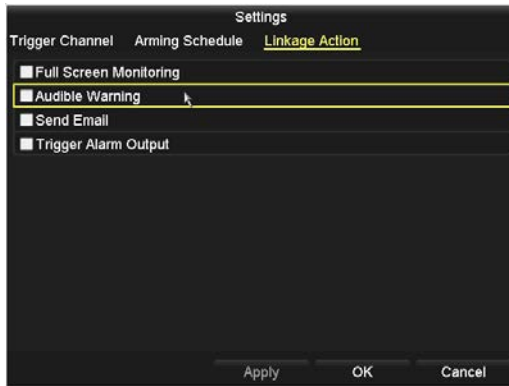


- f. In the Settings **Trigger Channel** window, select the other channels that should trigger recording on this channel, then click **Apply** to save your settings.
- g. Click the **Arming Schedule** tab. With the Arming Schedule, you can define a schedule with up to eight periods for each day when motion detection is monitored. Time periods cannot overlap.



- h. Click **Apply** to save the settings. You can also click Copy to copy the Arming Schedule setup in the window to other days of the week.

- i. Click the **Action** tab. In the Action tab, you can cause certain actions to occur when motion triggered recording occurs.



- j. Select the actions you want to occur, then click **Apply** to save your settings, and **OK** to return to the Motion Detection menu.

NOTE

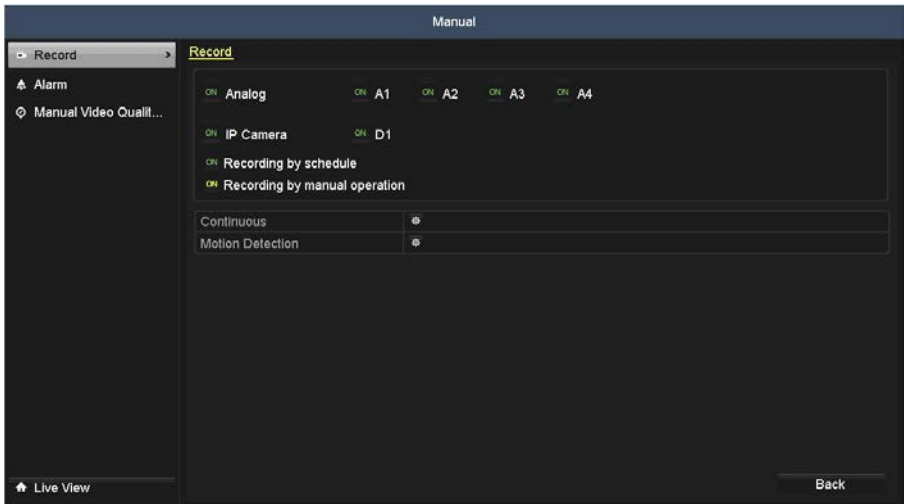
*The **Notify Surveillance Center** and **Send Email** options require additional network settings. See "SECTION 7 Network Settings" on page 101 for more information.*

- k. Repeat step **2.a** above for a different camera, then repeat steps **2.b** through **2.j** to setup motion detection for that camera. Repeat this step until all analog cameras are configured as needed.

5.1.4 Manual record

Follow the steps below to begin manual recording. Manual recording, once initiated, requires a manual cancel of the record. The manual recording can occur prior to the scheduled recording.

1. Open the Manual settings menu. Go to **Menu | Manual**.



2. To enable Manual Record:
 - a. Select **Record** on the left menu frame.
 - b. Click the status button before camera number to change the label from OFF to ON, if necessary.
 - c. Click the icon after **Normal** or **Motion Detection**.
 - d. When the Attention window opens, click **Yes**.



3. To disable Manual Record:
 - a. Select **Record** on the left menu frame.
 - b. Click the status button before camera number to change the label from **ON** to **OFF**.
 - c. Click the icon after **Normal** or **Motion Detection**.
 - d. When the Attention window opens, click **No**.

NOTE

Green “ON” icon means that the channel is configured with a record schedule.
If the DVR is rebooted, manual record operations are canceled.

5.1.5 Configuring HDD Group for Recording

You can form a group of cameras and save the record files from them to a specific HDD. You must have multiple HDDs installed in the system to use this configuration. **NOTE:** In the example shown below, the DVR configuration does not include multiple HDDs. However, the screen captures and procedure applies to creation of an camera group.

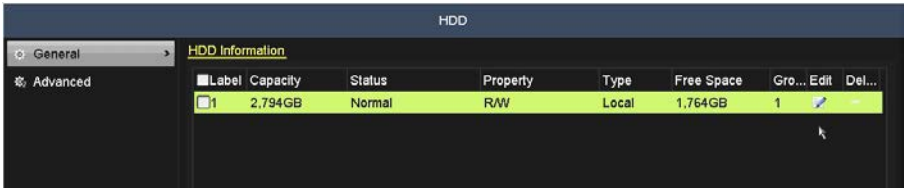
1. Open the HDD menu. Go to **Menu | HDD | Advanced**
2. Click **Advanced** in the left frame to open the **Storage Mode** menu.



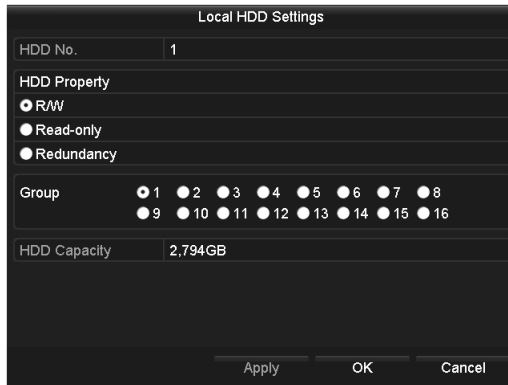
3. In the **Mode** drop down list, select **Group**. The Group definition window will open.



4. Click **Apply** to create the group. **NOTE:** Creation of a group will force a DVR reboot.
5. After the DVR reboots, open the HDD Genera menu. Go to **Main menu | HDD**



6. On the entry for the HDD, click the **Edit** icon. The **Local HDD Settings** window will open.



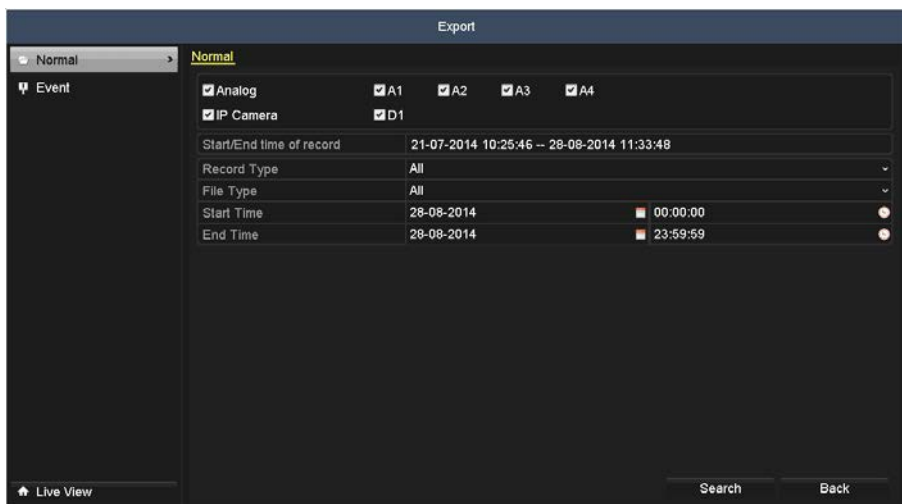
7. In the window shown above, select the **Group** number you want to assign to the HDD, then click **OK**.

5.1.6 Files Protection

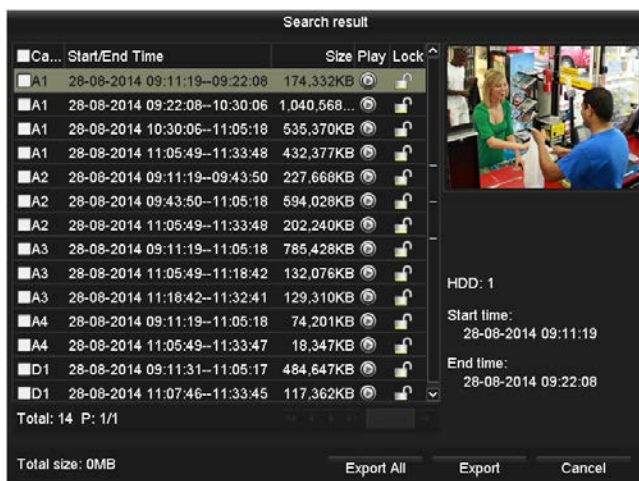
You can lock the recorded files or set the HDD property to Read-only to protect the record files from being overwritten.

1. Open the **Export** menu. Go to **Menu | Export**

SECTION 5: RECORD, PLAYBACK AND VIDEO BACKUP

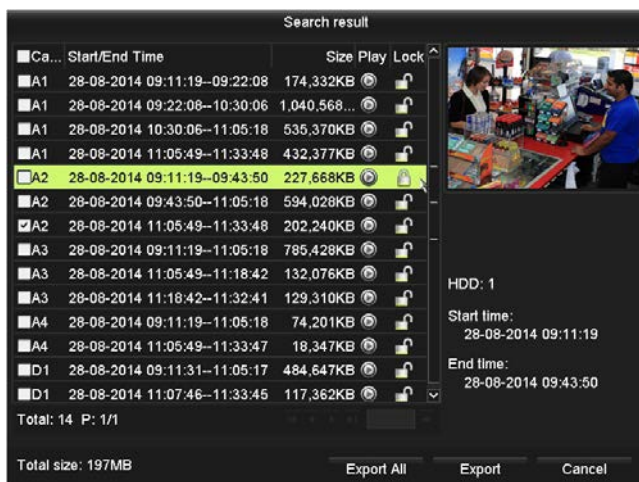


2. Check the box(es) for the channel(s) you want to investigate.
3. Configure the record type, File Type (locked or unlocked), and Start Time and End Time.
4. Click **Search** to show the results.



5. To protect the record files:

- a. Determine which files you want to protect, and then click the icon in the Lock column to show a “locked” padlock (indicating that the file is locked). Similarly, unlock files by clicking on the “locked” icon to show an “unlocked” padlock.



6. To unlock a file, click a locked icon, and then respond appropriately to the **Attention** pop-up window.



NOTE File of recording in progress cannot be locked.

5.2 Playback

5.2.1 Instant playback by channel

Playback the recorded video files of a specific channel in the live view mode. Channel switch is supported.

Instant playback by channel

In Live View mode, click the channel you want to playback, then click the playback icon on the Quick Setting toolbar. In the instant playback mode, only recordings made during the previous five minutes on the channel are played.



Instant playback

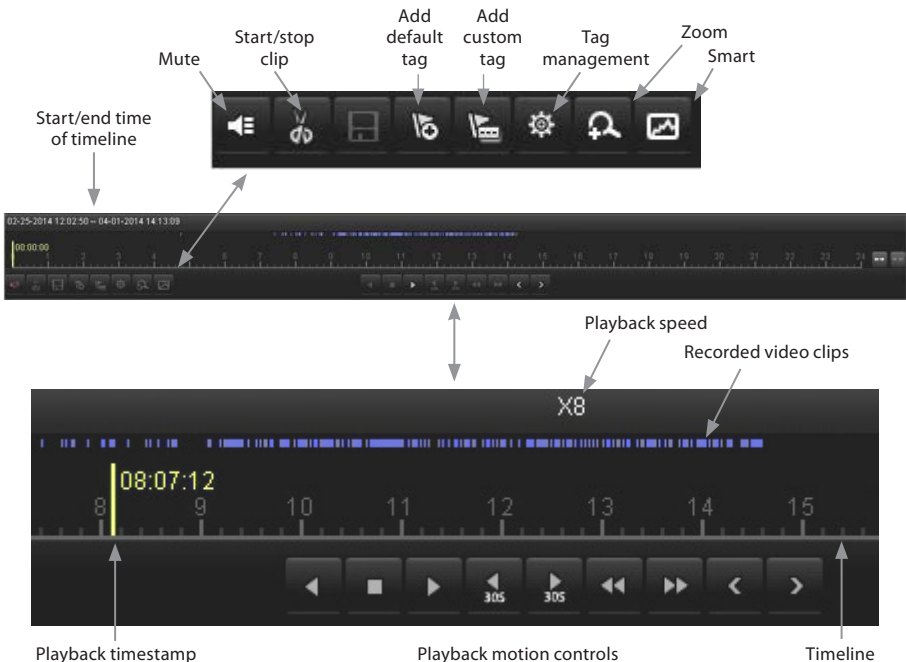
During playback, the menu changes to a playback control bar you can use to pause and cancel playback.

5.2.2 Playing back video by channel

























1. Open the Playback menu. Go to **Menu | Playback**. You can also open single channel playback mode by viewing a single channel in Live view mode, then pressing the **Play** button on the front panel.
2. In the **Playback** screen, check the box for the camera channel(s) you want to playback.
3. In the calendar section, click the day when the video clip you want to play was recorded.
4. To start playback, click the **Play** button (▶) in the playback controls panel at the bottom of the screen.



Playback controls are shown below.



SECTION 5: RECORD, PLAYBACK AND VIDEO BACKUP

Button	Operation	Button	Operation	Button	Operation	Button	Operation
	Audio on/ Mute		Adjust volume		Start/Stop clipping		Capture
	File lock		Add default tag		Add customized tag		File Management
	Digital Zoom		Pause reverse play/ Reverse play/ Single-frame reverse play		Stop		Pause play/ Play/ Single-frame play
	30s forward		30s reverse		Speed down		Speed up
	Previous day		Next day		Scaling up/down the time line		Process bar
	Video type bar		Playback type / picture		Full screen		Exit

Playback toolbar icons

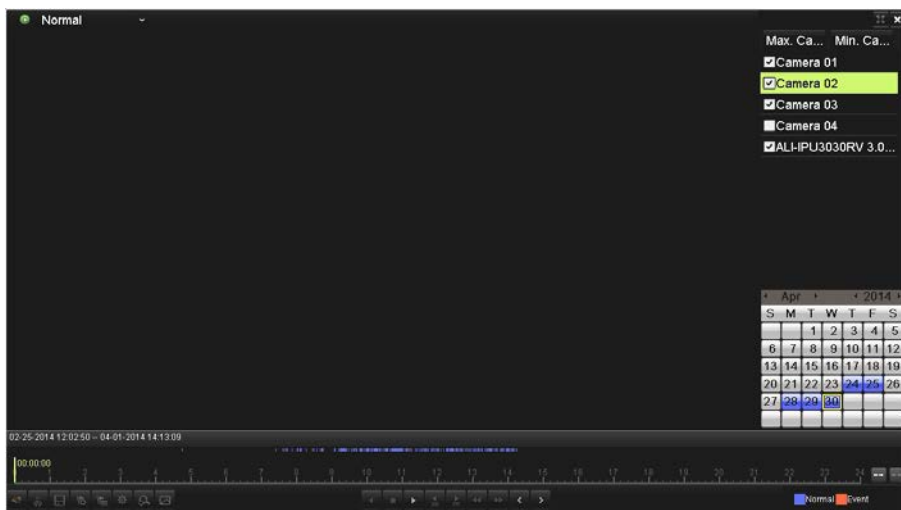
NOTES:

- In the “Recorded video clips” markings, blue marks represent Normal recording, red marks indicate event recording (motion, alarm, motion | alarm, motion & alarm).
- Timeline: Use the mouse to click any point of the timeline bar to locate special frames, and drag the cursor to show the thumbnail of the current time.

5.2.3 Playing Back by Time

Play back video files recorded in specified time duration. Multi-channel simultaneous playback and channel switch are supported.

- Open the Playback interface. Go to **Menu | Playback**



2. Check the box of the channel(s) in the channel list you want to playback, then double-click the date on the calendar to select the day when video was recorded. On the calendar, days when video was recorded for the cameras selected is marked in blue. The day selected is bordered in yellow.





For the definition of icons in the playback toolbar, see “5.2.2 Playing back video by channel” on page 68.

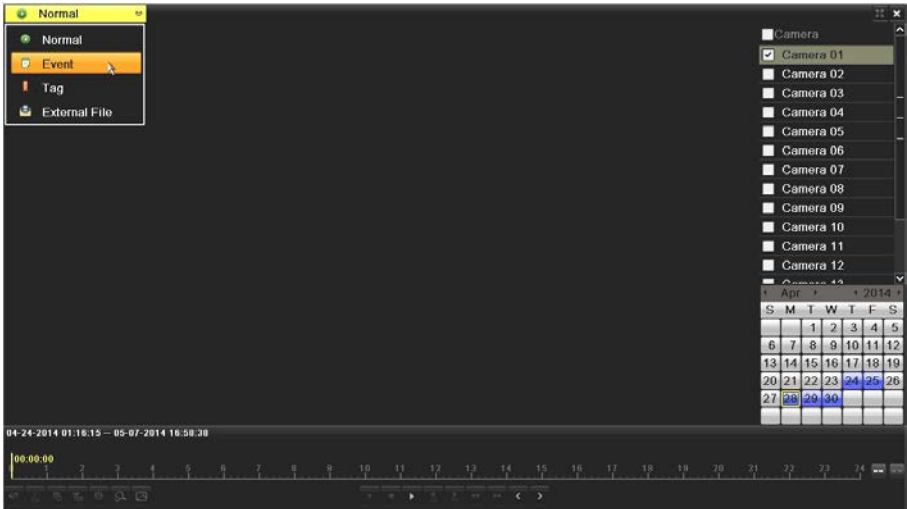
NOTES:

- In the “Recorded video clips” markings, blue marks represent Normal recording, red marks indicate event recording (motion, alarm, motion | alarm, motion & alarm, VCA).
- Timeline: Use the mouse to click any point of the timeline bar to locate special frames, and drag the cursor to show the thumbnail of the current time.

5.2.4 Playback by Event Search

Play back record files on one or several channels searched out by restricting event type (e.g. alarm input and motion detection).

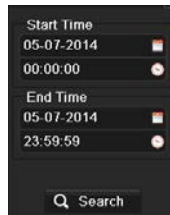
1. Open the **Playback** interface. Go to **Menu | Playback**



- Open the drop-down list in the upper-left corner of the screen, then select **Event**.
- Open the **Type** drop down list (in the upper right corner), then select the kind of event you want to search for. In the example above, only **Alarm Input** and **Motion** type events are available.



- On the right side of the screen, click the icons to select the **Start Time** and **End Time** within which the event occurred.



SECTION 5: RECORD, PLAYBACK AND VIDEO BACKUP

- Click **Search**. A list of events (channel and time) that occurred during the time frame selected will appear on the right side of the screen.



- Select an entry in the list (camera channel and the time), then click the **Play** icon in the playback toolbar to show the video associated with the event.



For the definition of icons in the playback toolbar, see “5.2.2 Playing back video by channel” on page 68.

5.2.5 Playback by Tag

Video tags provide a convenient way to identify video clips, then find and replay them later. Tags are associated with video clips during playback using the icons in the lower left corner of the screen.

1. Open the **Playback** interface. Go to **Menu | Playback**
2. Search for and play back the record file(s). See “5.2.2 Playing back video by channel” on page 68 for more information.



3. Play the file you want to tag.
4. To tag the file, click the  icon to add a default tag, or click the  icon to add customized tag and input tag name. In the example below, a customized tag is created. Up to 64 tags can be assigned to one video clip.

SECTION 5: RECORD, PLAYBACK AND VIDEO BACKUP



- In the pop-up window above, the tag auto theft was keyed in. After entering the tag name, click **Enter**, then click **OK** to close the **Add Tag** window.

Tag management

- Click the  icon to open the **Tag management** window. In the example below, two tags are shown.



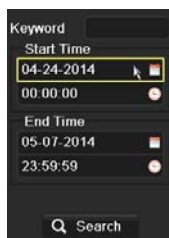
In the **Tag management** window, click the **Edit** icon to edit the **Tag Name**, or click the **Del...** icon to delete it.

Search for tagged video clips

- In the Playback interface window, open the drop-down list in the upper-left corner of the screen, then select **Tag**.



- Select the camera channels that contain tags you want to search for.
- On the right side of the screen, click the icons to select the **Start Time** and **End Time** within which the event occurred.



- Click **Search**. A list of events (channel and time) that occurred during the time frame selected will appear on the right side of the screen.
- Click the Play icon associated with the tag to play the tagged video clip.

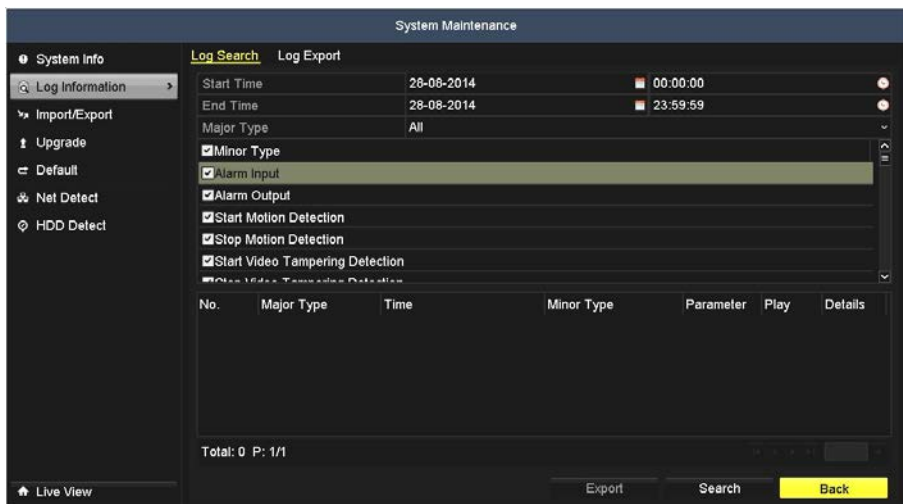


In the Playback window, you can change the Pre-play and Post-play values to see more video around the tag.

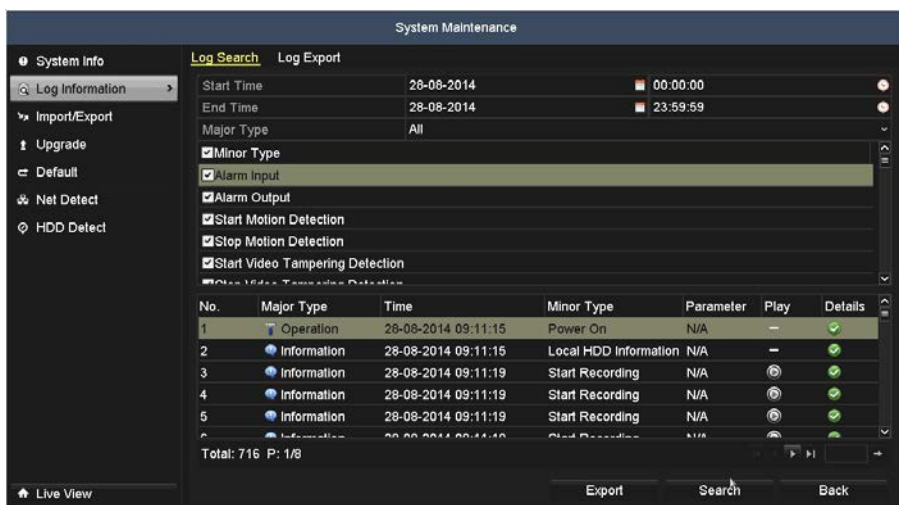
5.2.6 Playback using System logs

You can play back record file(s) associated with channels after searching system logs.

1. Open the Log Information menu. Go to **Menu | Maintenance | Log Information**



2. Select a Start Time, End Time, Major Type and Minor Type., then click **Search**. In the example below, the search criterion specified are "All" (Major Type) entries.



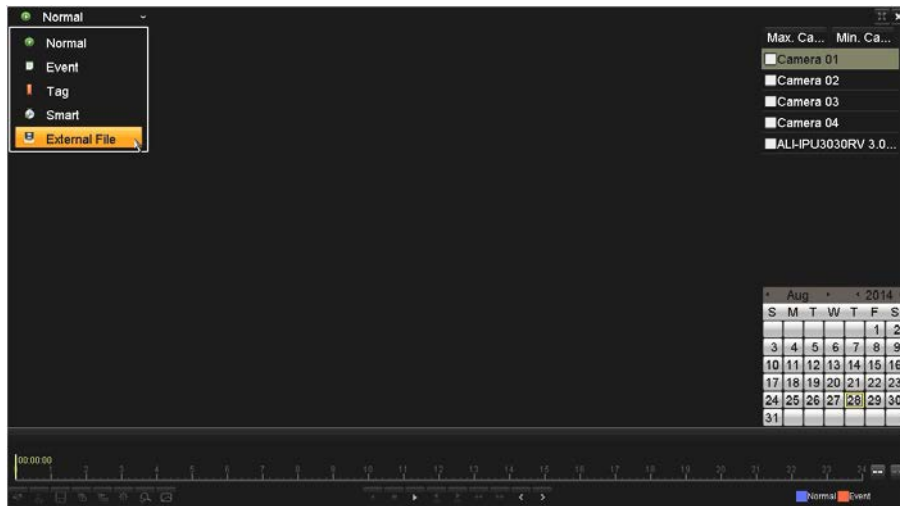
3. Find the entry in the search results list that is associated with a Play icon. See the example above.
4. Click the **Play** icon to watch the video associated with the event.



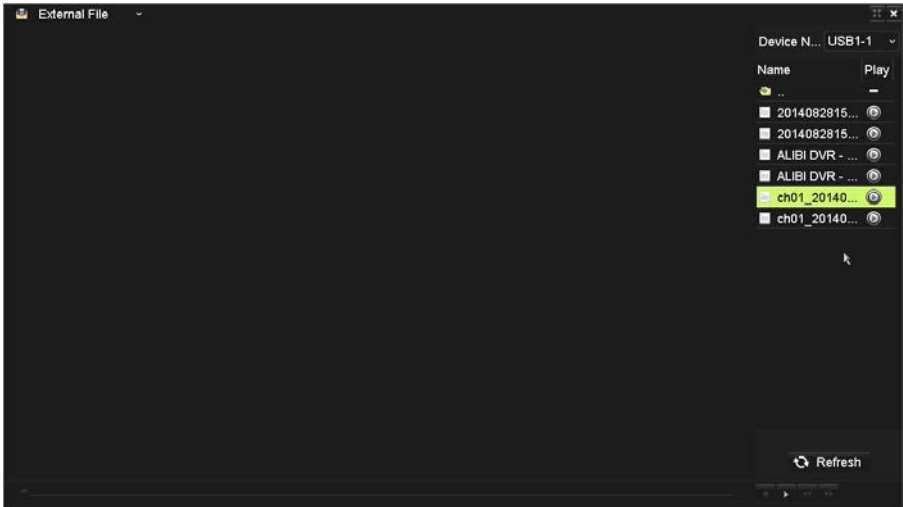
5.2.7 Playing Back an external file

You can playback a file on an external device, such as a video file saved on a backup disk or flash drive.

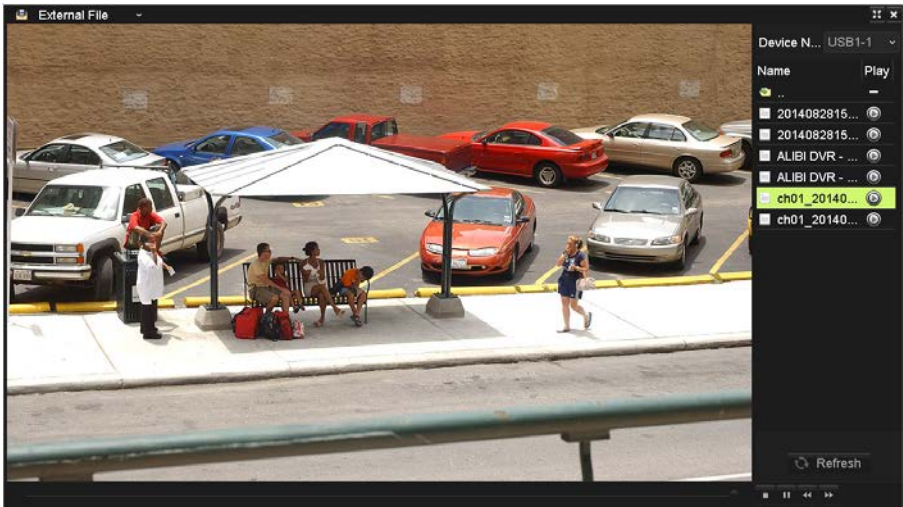
1. Open the **Playback** interface. Go to **Menu | Playback**



2. Open the drop-down list in the upper-left corner of the screen, then select **External file** . See above.
3. Attach the external storage device containing the file to one of the USB ports. If multiple storage devices are connected to USB ports, open the **Device** drop down list in the upper right corner and select the device containing the file.
4. Peruse the list, then highlight the file you want to play. If the file is in a directory on the device, click the icon to the left of the directory name to show the contents of the directory.



5. Click the **Play** icon associated with the file you want to play.



5.2.8 Auxiliary Functions - Playback frame by frame

Play video files frame by frame, in case of checking image details of the video when abnormal events happen.

Using a Mouse

Go to **Menu | Playback**

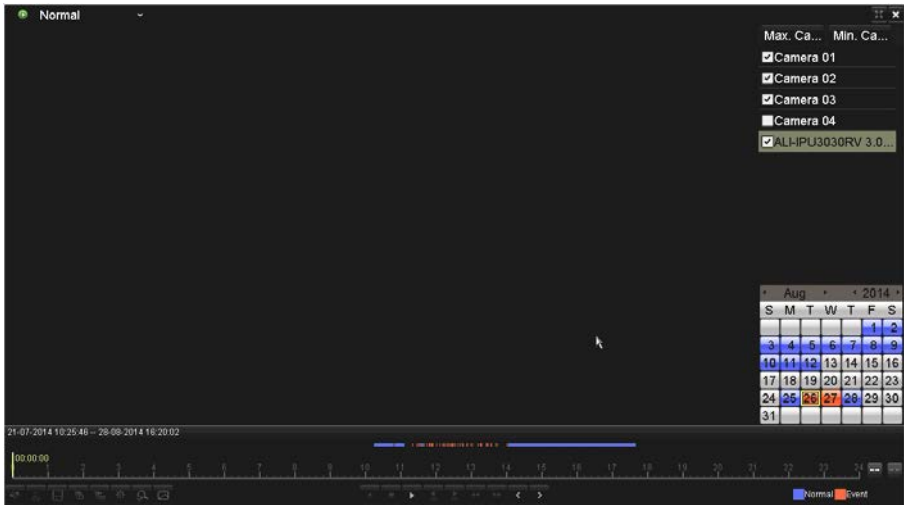
Playback a file. During playback, click the button ◀◀ until the speed changes to **Single**. One click on the playback screen advances playback to the next frame forward. Click ▶▶ to increase the playback speed in forward.

During reverse playback click the button ◀◀ until the speed changes to **Single**. One click on the playback screen advances playback to the next frame in reverse. Click ▶▶ to increase the playback speed in reverse.

5.2.9 Auxiliary Functions - Reverse Playback of Multi-channel

You can play back record files of multi-channel reversely. Up to 16-ch (with 1280*720 resolution) simultaneous reverse playback is supported; up to 4-ch (with 1920*1080p resolution) simultaneous reverse playback is supported and up to 1-ch (with 2560*1920 resolution) reverse playback is supported.

1. Open the Playback interface. Go to **Menu | Playback**



2. Check the box of the channel(s) in the channel list you want to playback.
3. Double-click the date on the calendar to select the day when video was recorded. On the calendar, days when video was recorded for the cameras selected is marked in blue. The day selected is bordered in yellow.



For the definition of icons in the playback toolbar, see "5.2.2 Playing back video by channel" on page 68.

5.2.10 Digital Zoom

1. Click the magnifier button on the playback control bar to enter Digital Zoom screen. The video image will expand to full-screen, with an inset box in the lower right corner.
2. Use the mouse to click in the inset box on the area of the screen you want to expand. To exit Zoom mode, right click anywhere on the screen.



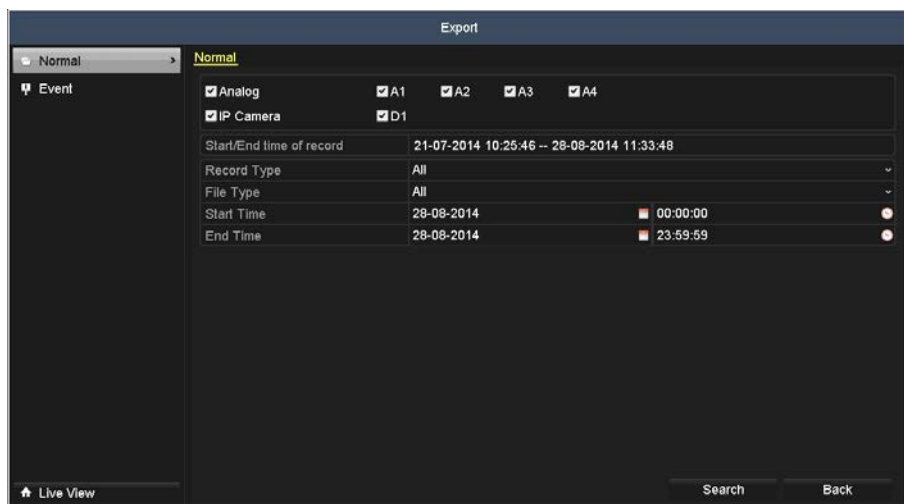
3. Right-click on the image to exit the digital zoom mode.

5.3 Backing up Record Files - Export

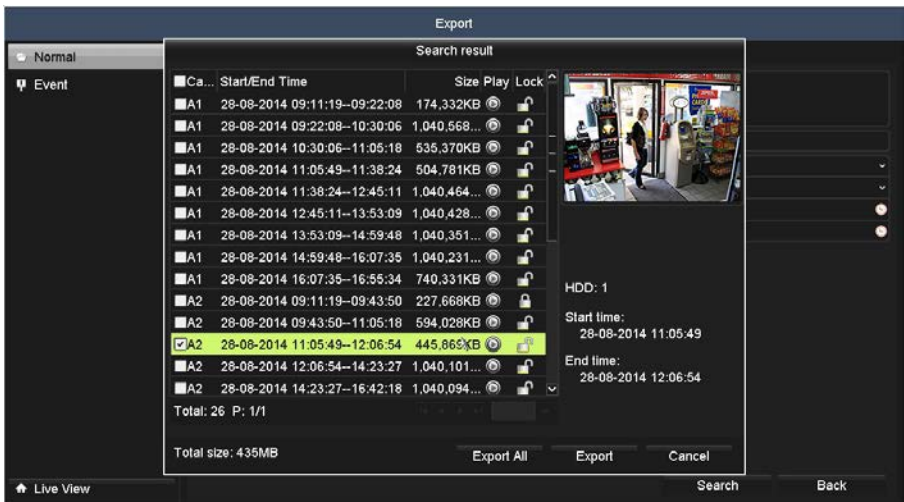
5.3.1 Export by video search

The Export by video search feature allows you to export specific video clips. The export operation writes the selected file(s) to an USB device.

1. Attach an USB storage device, such as a USB flash drive or USB disk drive, to the DVR USB port.
2. Open the Export menu. Go to: **Menu | Export | Normal**

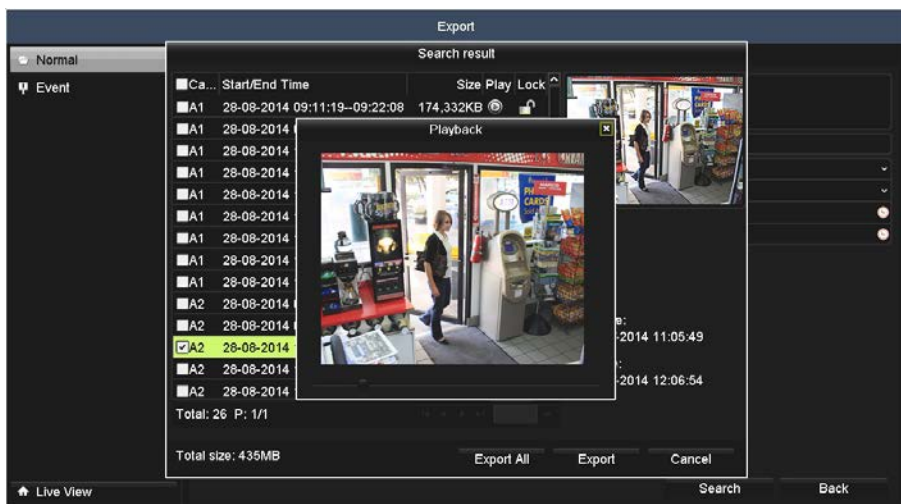


3. Check the boxes for the camera channels you want to back up.
4. Select the **Start Time** and **End Time** of the period when the video clips of interest were recorded. To change the time, click on the field, then select the target date or time from the pop-up menu.
5. Click **Search** to list the video clips recorded during the selected time span. In the **Search Result** list, you can play the video clip by clicking the icon in the Play column associated with the file.
6. Select the video clips you want to export by clicking the checkbox associated with the file. By default, all files are selected. You can deselect all files by clicking the checkbox in the table header, then click the checkboxes for only those files you want to export.
7. To play a file in the Search result list:
 - a. Click the file to highlight it, and then click the box on the left to check mark it.

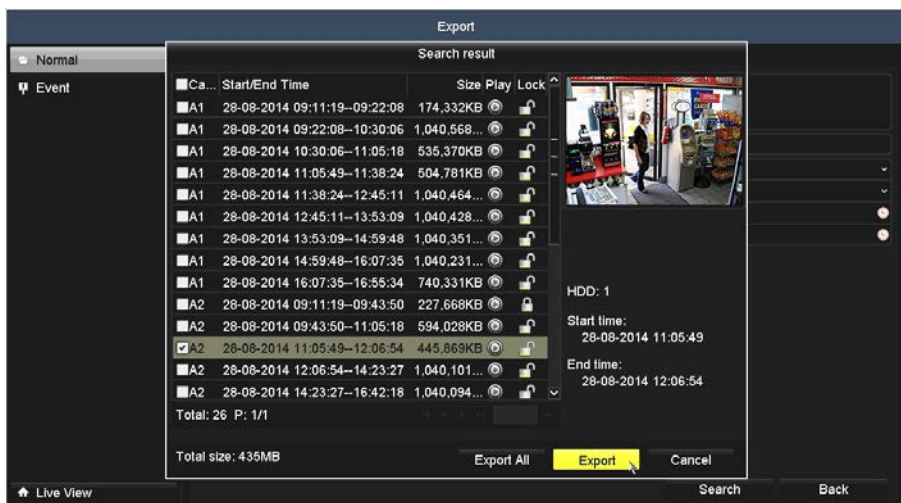


- b. You can click the Play icon to watch the video. A pop up window will appear.

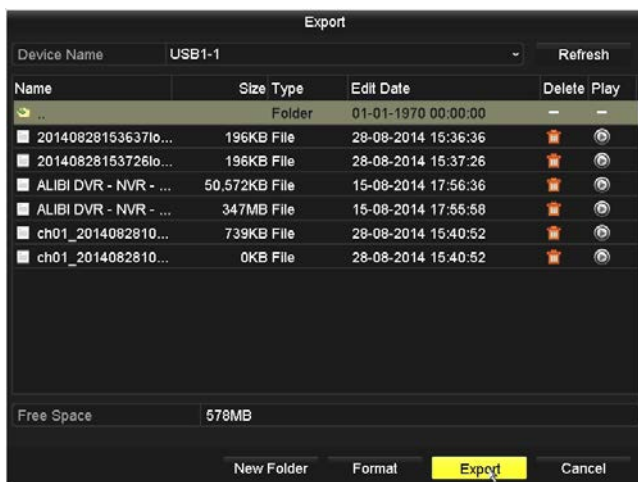
SECTION 5: RECORD, PLAYBACK AND VIDEO BACKUP



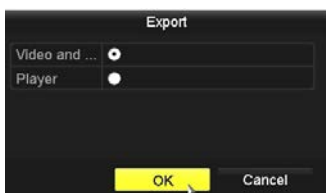
- Close the playback window, then click **Export**.



- In the **Export** window, select the directory where you want to copy the files, or create a **New Folder**.
- Click the **Export** button to start the **Export**.



11. In the pop-up window that appears, you can export the file and player (upper option), or just the player. Choose the option you prefer, and then click **OK**.



12. Allow the Export process to finish, and then click in the status window.

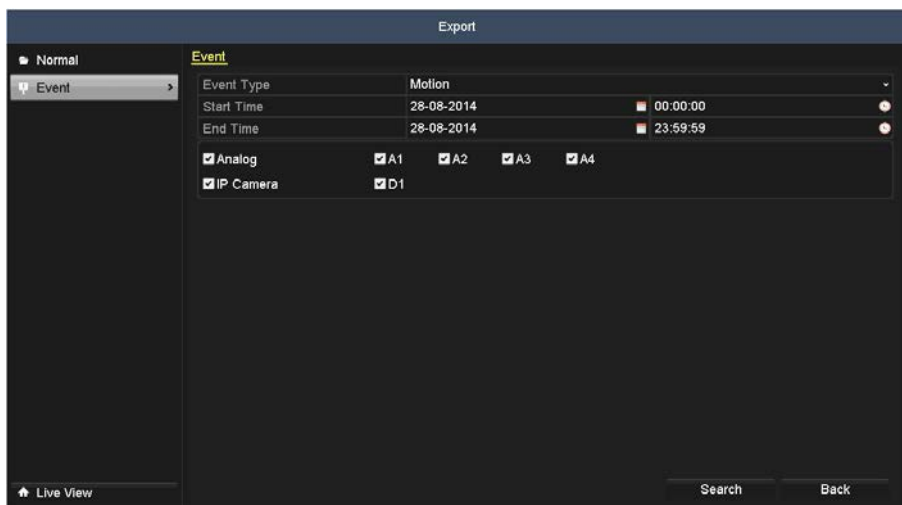


13. Verify that the file you exported can be played from the flash device.

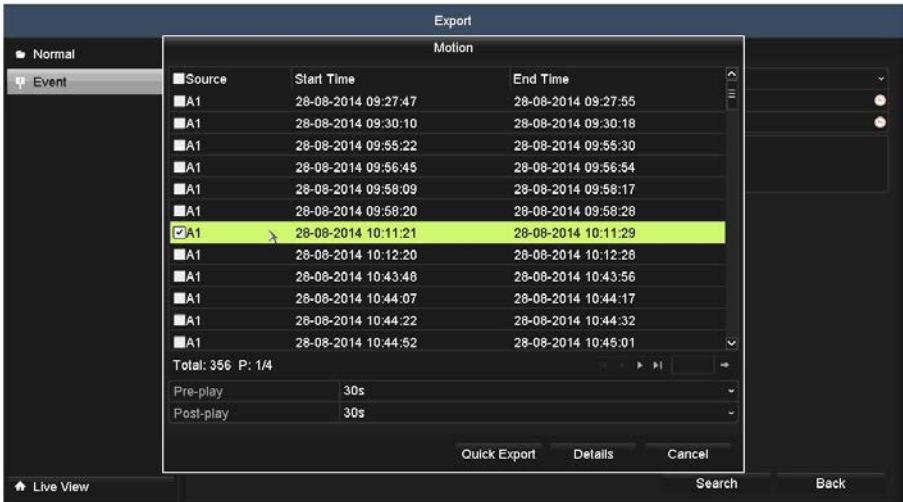
5.3.2 Export by Event Search

Video recordings triggered by Events, such as motion detection, can be searched for and exported to a USB storage device such as a USB flash drive or USB disk drive, or USB optical drive.

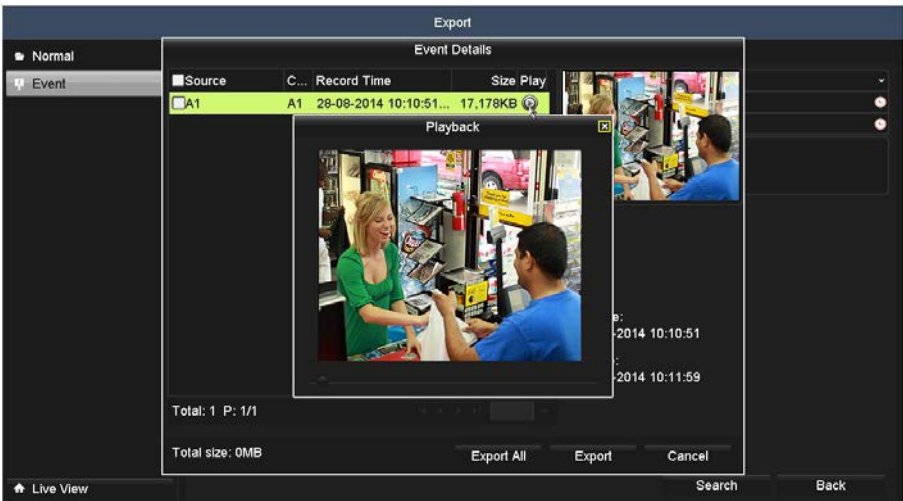
1. Attach an USB storage device, such as a USB flash drive or USB disk drive, to the DVR USB port.
2. Open the Export menu. Go to: **Menu | Export | Event**
3. On the Event Type line, select open the drop down list and select, for example, **Motion**.



4. Check the boxes for the analog cameras you want to search.
5. Select the **Start Time** and **End Time** of the period when the video clips of interest were recorded. To change the time, click on the field, then select the target date or time from the pop-up menu.
6. Click **Search** to list the video clips recorded during the selected time span.

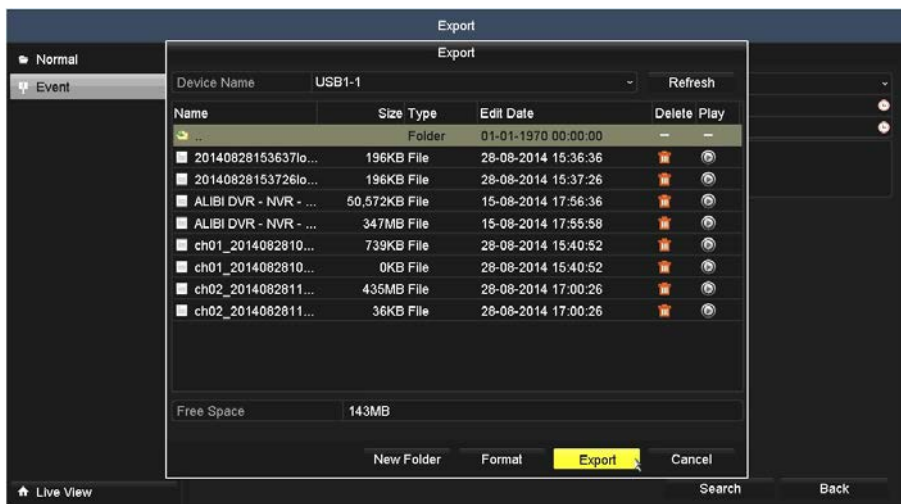


7. Click the file you want to export, then click the select box on the left to check mark it.
8. To playback the video file you selected, click **Details**. In the **Events Detail** window, click the play icon to watch the file. When finished, close the **Playback** window.

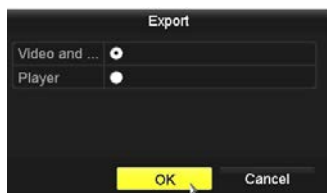


SECTION 5: RECORD, PLAYBACK AND VIDEO BACKUP

9. Click **Export** to save the video file. A pop-up window will open showing the file structure of your external storage device. If your USB device is not shown in the **Device Name** field, click the **Refresh** button.



10. In the **Export** window, select the directory where you want to copy the files, or create a **New Folder**, and then click **Export**.
11. In the pop-up window that appears, you can export the file and player (upper option), or just the player. Choose the option you prefer, and then click **OK**.



12. Allow the Export process to finish, and then click in the status window.

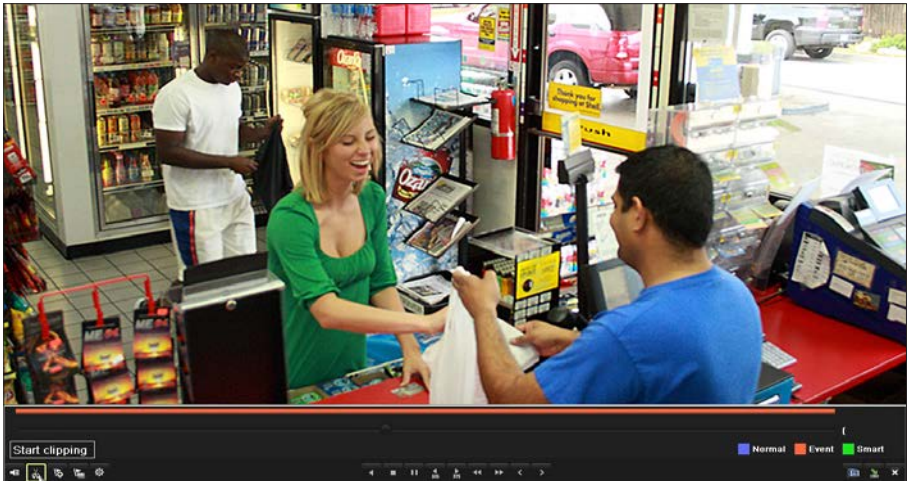


13. Verify that the file you exported can be played from the flash device.

5.3.3 Exporting Video Clips during playback

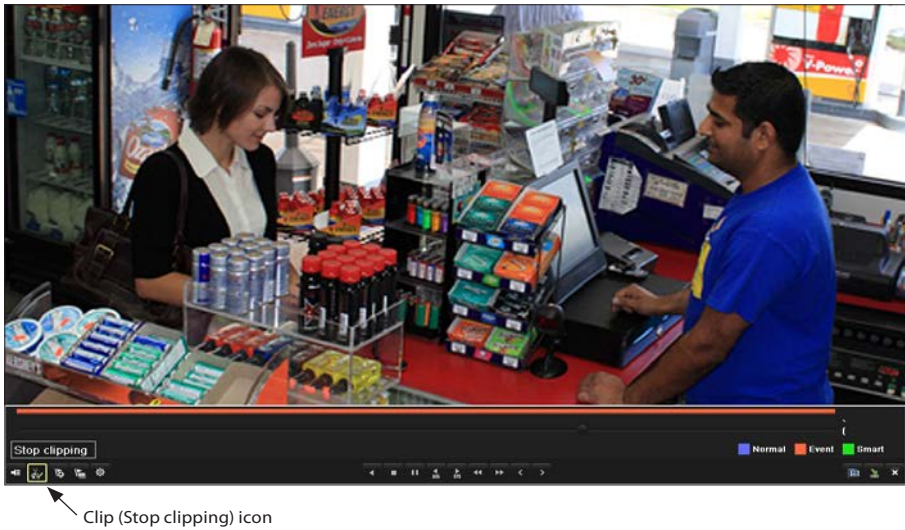
Segments of video recordings can be backed up (exported) during playback. These files exported to a USB storage device such as a USB flash drive or USB disk drive, or USB optical drive.

1. Attach an USB storage device, such as a USB flash drive or USB disk drive or USB optical drive, to the DVR USB port.
2. Playback a video file.



Clip (Start clipping) icon

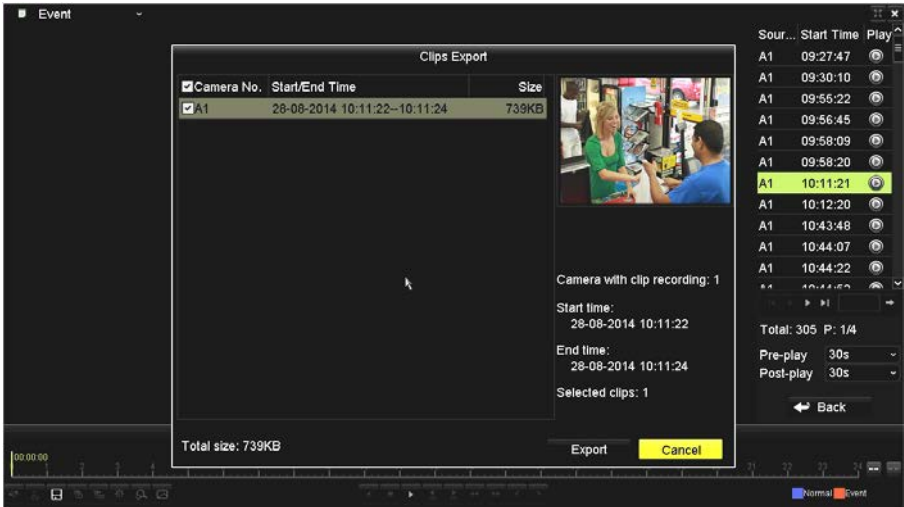
3. Advance the file playback to the start of the segment you want to export, then click the **Clip** icon (**Start clipping** scissors) at the bottom of the screen to mark the start of the clip you want to save.
4. Advance the file playback to the end of the segment you want to export, then click the **Clip** icon (**Stop clipping** scissors) again to mark the end of the clip you want to save.



5. Right click anywhere in the video window, then select **Exit**. The Attention pop-up window shown below will appear.

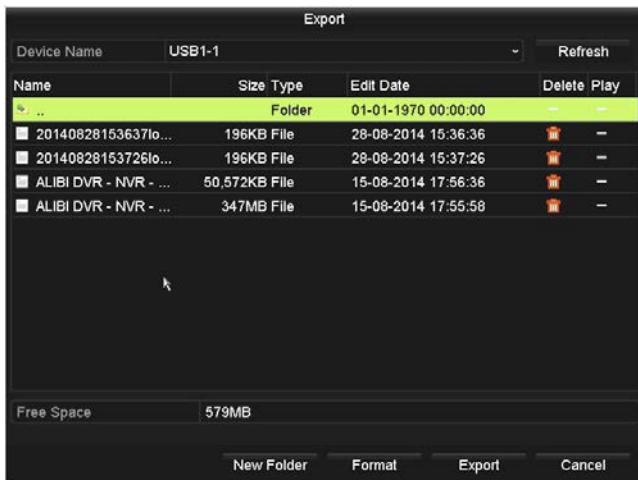


6. Click **Yes** to save the video clip you marked. A Clips Export window will open



7. In the **Clips Export** window, click the clip you created to highlight it, then check mark the box to the left.
8. Insert a USB flash drive with sufficient capacity (see the file size above) into one of the USB ports on the DVR.
9. Click **Export** to begin the process. The Export window will open. If the USB drive doesn't appear on the **Device Name** line, click **Refresh** until it shown. **NOTE:** Some USB devices types include the **New Folder** and **Format** options, other types include only an **Erase** option.

SECTION 5: RECORD, PLAYBACK AND VIDEO BACKUP



- Click the **Export** button in the Export window to continue. In the pop-up window that appears, you can export the file and player (upper option), or just the player. Choose the option you prefer, and then click **OK**.



- Allow the Export process to finish, and then click OK in the status window.



- Verify that the file you exported can be played from the flash device.

SECTION 6

Managing User Accounts

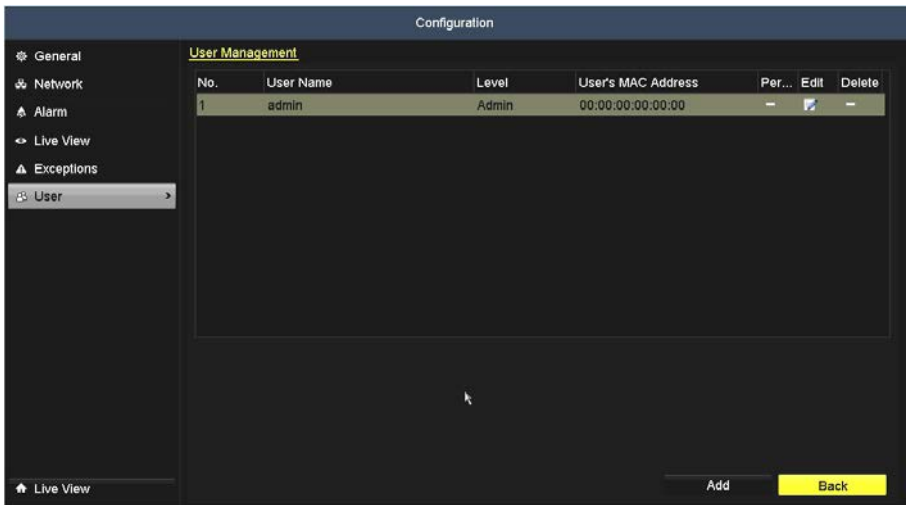
User accounts are created to control access to the system both at the DVR and when logging into the DVR from a remote computer. Each account has a User Name, Password, and a selection of permissions granted to the user.

By default, one user, named “admin”, is provided. The admin user is granted all permissions with the system, and can create, modify, and delete other users. User Name “**admin**”, is assigned the default password “**1111**”. To improve system security, it is strongly recommended that the default password be changed during the initial system setup.

The DVR supports up to 32 user accounts. To add, edit, and delete user accounts, you must log into the DVR with **admin** user credentials.

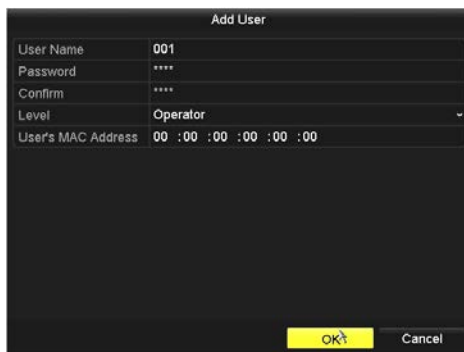
Adding a user account

1. Enter the User Management interface. Go to **Menu | Configuration | User**



2. Click **Add** to open the Add User menu.

SECTION 6: MANAGING USER ACCOUNTS

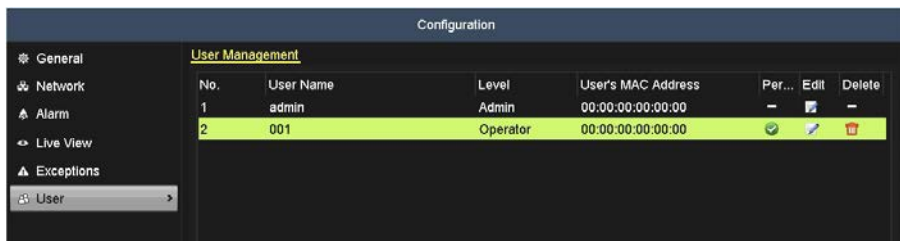


The 'Add User' dialog box contains the following fields:

Field	Value
User Name	001
Password	****
Confirm	****
Level	Operator
User's MAC Address	00 : 00 : 00 : 00 : 00 : 00

Buttons: OK, Cancel

3. Enter the information for new user, including User Name, Password, Level and User's MAC Address.
 - Set the user **Level** to Operator or Guest. Different **Levels** have different operating permission.
 - * **Operator**: The Operator user level has permission of Two-way Audio in Remote Configuration and all operating permission in Camera Configuration by default.
 - * **Guest**: The Guest user has no permission of Two-way Audio in Remote Configuration and only has the local/remote playback in the Camera Configuration by default.
 - **User's MAC Address**: The MAC address of the remote PC which logs onto the DVR. If this option is configured and enabled, a remote user with this MAC address only can access the DVR.
4. Click the **OK** to save the settings and go back to the User Management interface. The added new user will be displayed on the list. See the screen shown below.



The 'User Management' interface shows a table of users:

No.	User Name	Level	User's MAC Address	Per...	Edit	Delete
1	admin	Admin	00:00:00:00:00:00	-		-
2	001	Operator	00:00:00:00:00:00			

5. Select the user from the list and then click the button to enter the Permission settings interface. In the example above, user "01" was selected.

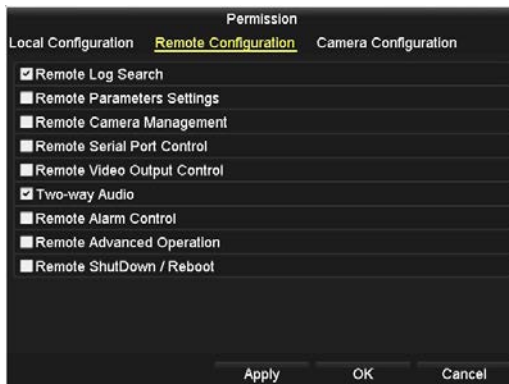


6. Set the operating permission of Local Configuration, Remote Configuration and Camera Configuration for the user.

Local Configuration options:

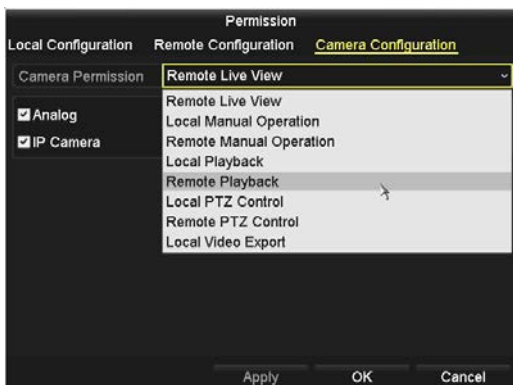
- **Local Log Search:** Searching and viewing logs and system information of DVR.
- **Local Parameters Settings:** Configuring parameters, restoring factory default parameters and importing/exporting configuration files.
- **Local Camera Management:** Configuring camera parameters, add/delete cameras.
- **Local Advanced Operation:** Operating HDD management (initializing HDD, setting HDD property), upgrading system firmware, clearing I/O alarm output.
- **Local Shutdown Reboot:** Shutting down or rebooting the DVR.

Remote Configuration options



- **Remote Log Search:** Remotely viewing logs that are saved on the DVR.
- **Remote Parameters Settings:** Remotely configuring parameters, restoring factory default parameters and importing/exporting configuration files.
- **Remote Serial Port Control:** Reserved for future expansion.
- **Remote Video Output Control:** Sending remote button control signal.
- **Two-Way Audio:** Realizing two-way radio between the remote client and the DVR.
- **Remote Alarm Control:** Remotely arming (notify alarm and exception message to the remote client) and controlling the alarm output.
- **Remote Advanced Operation:** Remotely operating HDD management (initializing HDD, setting HDD property), upgrading system firmware, clearing I/O alarm output.
- **Remote Shutdown/Reboot:** Remotely shutting down or rebooting the DVR.

Camera Configuration



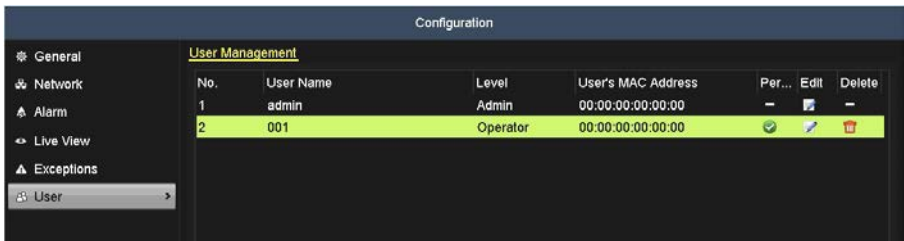
- **Remote Live View:** Remotely viewing live video of the selected camera(s).
- **Local Manual Operation:** Locally starting/stopping manual recording, picture capturing and alarm output of the selected camera(s).
- **Remote Manual Operation:** Remotely starting/stopping manual recording, picture capturing and alarm output of the selected camera(s).
- **Local Playback:** Locally playing back recorded files of the selected camera(s).
- **Remote Playback:** Remotely playing back recorded files of the selected camera(s).
- **Local PTZ Control:** Locally controlling PTZ movement of the selected camera(s).
- **Remote PTZ Control:** Remotely controlling PTZ movement of the selected camera(s).
- **Local Video Export:** Locally exporting recorded files of the selected camera(s).

7. Click **OK** to save your settings and exit the User menus.

NOTE Only the admin user account has permission to restore the DVR to factory default settings.

6.1 Deleting a user account

1. Enter the User Management interface. Go to **Menu | Configuration | User**
2. Click the entry for the user to be deleted from the list. When the item is selected, it is highlighted.



3. Click the trash icon to delete the selected user.

6.2 Editing a user account

1. Enter the User Management interface. Go to **Menu | Configuration | User**
2. Select the user to be edited from the list (see the **User Management** window above).
3. Click the Edit icon to open the Edit User interface. **Note:** The **admin** user can also be edited.

Edit User	
User Name	admin
Old Password	
Change Password	<input checked="" type="checkbox"/>
Password	
Confirm	
User's MAC Address	00 :00 :00 :00 :00 :00
<div>OK Cancel</div>	

Operator and Guest Edit User menu

Edit User	
User Name	admin
Old Password	
Change Password	<input checked="" type="checkbox"/>
Password	
Confirm	
User's MAC Address	00 :00 :00 :00 :00 :00
<div>OK Cancel</div>	

admin user Edit User menu

4. Select and edit the menu options as needed:
 - **Operator and Guest:** You can edit the user information, including user name, password, permission level and MAC address. To change the password, check the **Change Password** box, then enter the new password in the Password and Confirm fields. Record your new password and save it in a secure location.
 - **Admin:** In the Edit User menu for the admin user, you can edit only password and MAC address. To change the password, check the **Change Password** box, enter the old (current) admin password, then enter the new password in the Password and Confirm fields. Record your new password and save it in a secure location.
5. Click **OK** to save the settings and exit the menu.

SECTION 7

Network Settings

7.1 Configuring General Settings

Network settings must be properly configured before you connect the DVR to cameras on network, or access it remotely. By default, the DVR will use DHCP (Dynamic Host Configuration Processor) to acquire network settings from the network's Domain Name Server (DNS). Since with DHCP, the IPV4 (IP address) of the DVR can change, it is preferable to use a fixed IP address for easy access through your local network.

1. Open the Network General settings menu. Go to **Menu | Configuration | Network | General**

The screenshot shows the 'Configuration' window with the 'Network' tab selected. The 'General' sub-tab is active, displaying various network settings. The left sidebar shows a tree view with 'Network' selected. The main area contains a table of settings with their current values and checkboxes.

Configuration	
Extranet Access: <u>General</u> NTP Email NAT More Settings	
NIC Type	10M/100M Self-adaptive
Enable DHCP	<input checked="" type="checkbox"/>
IPv4 Address	192.168.75.121
IPv4 Subnet Mask	255.255.255.128
IPv4 Default Gateway	192.168.75.1
IPv6 Address 1	fe80::8ee7:48ff:fe73:d8b3:64
IPv6 Address 2	
IPv6 Default Gateway	
MAC Address	8c:e7:48:73:d8:b3
MTU(Bytes)	1500
Preferred DNS Server	
Alternate DNS Server	

At the bottom right, there are 'Apply' and 'Back' buttons. The bottom left shows 'Live View'.

2. In the General Settings menu, select or enter the following parameters: NIC Type, IPv4 Address, IPv4 Subnet Mask, IPv4 Gateway, MTU and DNS Server. If the DHCP server is available, you can check the Enable DHCP box to automatically obtain an IP address and other network settings from the network DNS server. **NOTE:** The valid MTU range is 500 .. 1500.
3. If you prefer, you can usually convert the address information acquired from DNS to a fixed IP address by unchecking the "Enable DHCP" checkbox.
4. Click **Apply** to save your settings.

7.2 Configuring Extranet Access

You can configure your DVR to use Extranet Access (or Dynamic DNS, DDNS). DDNS is especially useful for access to your DVR from outside the local network (i.e., the Internet), and you use DHCP to configure your DVR network settings. To configure the DVR to use DDNS:

1. Open the Network Settings menu. Go to **Menu | Configuration | Network**
2. Check the **Enable DDNS** box to enable this feature.
3. Open the **DDNS Type** drop down list and select one of five options: SimpleDDNS, IPServer, DynDNS, NO-IP.

The screenshot shows the 'Configuration' menu with the 'Extranet Access' tab selected. The 'Enable DDNS' checkbox is checked. The 'DDNS Type' dropdown menu is open, showing the following options: SimpleDDNS (selected), IPServer, DynDNS, NO-IP, and SimpleDDNS.

- **IPServer:** Enter Server Address for IPServer.

The screenshot shows the 'Configuration' menu with the 'Extranet Access' tab selected. The 'Enable DDNS' checkbox is checked. The 'DDNS Type' dropdown menu is set to 'IPServer'.

- **DynDNS:**

The screenshot shows the 'Configuration' menu with the 'Extranet Access' tab selected. The 'Enable DDNS' checkbox is checked. The 'DDNS Type' dropdown menu is set to 'DynDNS'.

- i. Enter Server Address for DynDNS (i.e. members.dyndns.org).
 - ii. In the DVR Domain Name text field, enter the domain obtained from the DynDNS website.
 - iii. Enter the User Name and Password registered in the DynDNS website.
- **NO-IP**: Enter the account information in the corresponding fields. Refer to the DynDNS settings.

The screenshot shows the 'Configuration' menu with 'Extranet Access' selected. The 'Network' tab is active, displaying the following settings:

Setting	Value
Enable DDNS	<input checked="" type="checkbox"/>
DDNS Type	NO-IP
Server Address	
Device Domain Name	
User Name	
Password	

- i. Enter Server Address for NO-IP.
 - ii. In the DVR Domain Name text field, enter the domain obtained from the NO-IP website (www.no-ip.com).
 - iii. Enter the User Name and Password registered in the NO-IP website.
- **SimpleDDNS**: Enter the Device Domain Name.

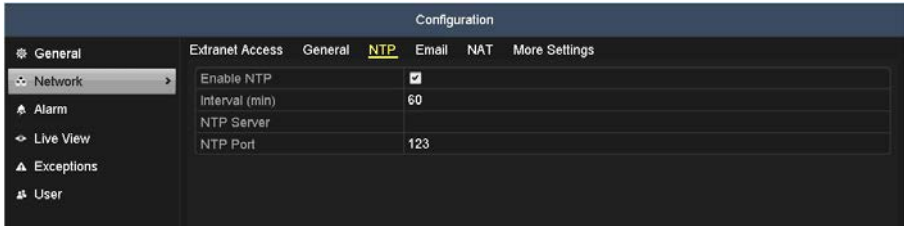
The screenshot shows the 'Configuration' menu with 'Extranet Access' selected. The 'Network' tab is active, displaying the following settings:

Setting	Value
Enable DDNS	<input checked="" type="checkbox"/>
DDNS Type	SimpleDDNS
Server Address	www.simpleddns.com
Device Domain Name	
User Name	
Password	

7.3 Configuring NTP Server

A Network Time Protocol (NTP) Server can be configured on your DVR to ensure the accuracy of system date/time.

1. Open the Network NTP settings menu. Go to **Menu | Configuration | Network | NTP**

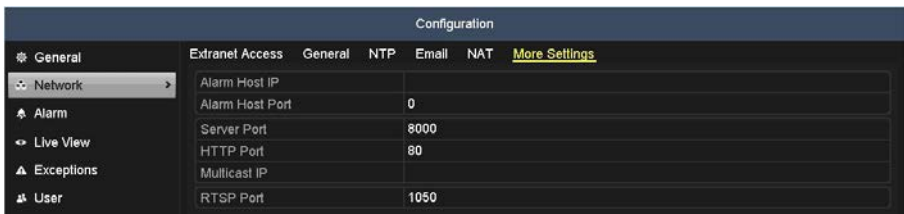


2. Check the Enable NTP box to enable this feature.
3. Select the following NTP settings:
 - **Interval:** Interval in minutes between the two synchronizing actions with an NTP server.
NOTE: The synchronization time interval can be set from 1 to 10080 minutes. The default value is 60 min. If the DVR is connected to a public network, use an NTP server that has a time synchronization function, such as the server at the National Time Center (IP Address: 210.72.145.44). If the DVR is setup in a more customized network, NTP software can be used to establish a NTP server used for time synchronization.
 - **NTP Server:** IP address of NTP server
 - **NTP Port:** Port of NTP server
4. Click **Apply** to save your settings and close the menu.

7.4 Configuring Multicast

Using the multicast function, more than 64 cameras are connectable. A multicast address spans the Class-D IP range of 224.0.0.0 to 239.255.255.255. We recommended that you use the IP address range from 239.252.0.0 to 239.255.255.255.

1. Enter the Network More Settings interface. Go to **Menu | Configuration | Network | More Settings**



2. Set the Multicast IP address. When adding a device to the Network Video Surveillance Software, the multicast address must be the same as the DVR's multicast IP.
3. Click **Apply** to save your settings and close the menu.

NOTE The multicast function must be supported by the network switch to which the DVR is connected.

7.5 Configuring RTSP

The RTSP (Real Time Streaming Protocol) is a network control protocol designed for use in communication systems to control streaming media servers.

1. Open the Network More Settings menu. Go to **Menu | Configuration | Network | More Settings**

Configuration	
General	Extranet Access General NTP Email NAT <u>More Settings</u>
Network	Alarm Host IP
Alarm	Alarm Host Port 0
Live View	Server Port 8000
Exceptions	HTTP Port 80
User	Multicast IP
	RTSP Port 1050

2. In the menu shown above, enter the RTSP port number. The default RTSP port is 1050.
3. Click **Apply** to save your settings and close the menu.

7.5.1 Configuring Server and HTTP Ports

You can change the server and HTTP ports in the Network Settings menu. The default server port is 8000 and the default HTTP port is 80.

1. Open the Network More Settings menu. Go to **Menu | Configuration | Network | More Settings**

Configuration	
General	Extranet Access General NTP Email NAT <u>More Settings</u>
Network	Alarm Host IP
Alarm	Alarm Host Port 0
Live View	Server Port 8000
Exceptions	HTTP Port 80
User	Multicast IP
	RTSP Port 1050

2. Enter a new Server Port number and HTTP Port number in the appropriate fields. The default Server Port is 8000 and the HTTP Port is 80.

SECTION 7: NETWORK SETTINGS

NOTE

The Server Port number must be in the range 2000 .. 65535, it is used for remote client software access.
The HTTP port is used for remote IE access.

3. Click **Apply** to save your settings and close the menu.

7.6 Configuring Email

The system can be configured to send an Email notification to all designated users if an alarm event is detected, etc., an alarm or motion event is detected or the administrator password is changed.

Before configuring the Email settings, the DVR must be connected to a local area network (LAN) that maintains an SMTP mail server. The network must also be connected to either an intranet or the Internet depending on the location of the e-mail accounts to which you want to send notification.

1. Open the Network Settings menu. Go to **Menu | Configuration | Network | General**
2. Set the IPv4 Address, IPv4 Subnet Mask, IPv4 Gateway and the Preferred DNS Server in the Network Settings menu. See “7.1 Configuring General Settings” on page 101 for more information.

The screenshot shows the 'Configuration' window with the 'Network' tab selected. The left sidebar contains a menu with 'General', 'Network', 'Alarm', 'Live View', 'Exceptions', and 'User'. The 'Network' tab is active, showing a table of network settings. The table has columns for the setting name and its value. The settings include NIC Type (10M/100M Self-adaptive), Enable DHCP (checked), IPv4 Address (192.168.75.121), IPv4 Subnet Mask (255.255.255.128), IPv4 Default Gateway (192.168.75.1), IPv6 Address 1 (fe80::8ee7:48ff:fe73:d8b3/64), IPv6 Address 2, IPv6 Default Gateway, MAC Address (8c:e7:48:73:d8:b3), MTU(Bytes) (1500), Preferred DNS Server, and Alternate DNS Server. At the bottom right, there are 'Apply' and 'Back' buttons.

Configuration	
Extranet Access <u>General</u> NTP Email NAT More Settings	
NIC Type	10M/100M Self-adaptive
Enable DHCP	<input checked="" type="checkbox"/>
IPv4 Address	192.168.75.121
IPv4 Subnet Mask	255.255.255.128
IPv4 Default Gateway	192.168.75.1
IPv6 Address 1	fe80::8ee7:48ff:fe73:d8b3/64
IPv6 Address 2	
IPv6 Default Gateway	
MAC Address	8c:e7:48:73:d8:b3
MTU(Bytes)	1500
Preferred DNS Server	
Alternate DNS Server	

3. Click **Apply** to save your settings and close the menu.
4. Click the **Email** tab to open the email settings men.

Configuration

General Network Alarm Live View Exceptions User

Extranet Access General NTP **Email** NAT More Settings

Enable Server Authentication ☐

User Name

Password

SMTP Server

SMTP Port 25

Enable SSL ☐

Sender

Sender's Address

Select Receivers Receiver 1

Receiver

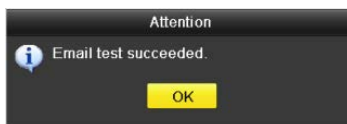
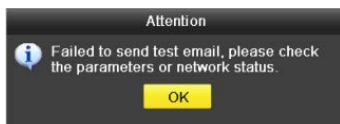
Receiver's Address

Enable Attached Picture ☐

Interval 2s

Live View Test Apply Back

5. Configure the following Email settings:
 - **Enable Server Authentication** (optional): Check the checkbox to enable the server authentication feature.
 - **User Name**: The user account of sender's Email for SMTP server authentication.
 - **Password**: The password of sender's Email for SMTP server authentication.
 - **SMTP Server**: The SMTP Server IP address or host name (e.g., smtp.263xmail.com).
 - **SMTP Port No.**: The SMTP port. The default TCP/IP port used for SMTP is 25.
 - **Enable SSL** (optional): Click the checkbox to enable SSL if required by the SMTP server.
 - **Sender**: The name of sender.
 - **Sender's Address**: The Email address of sender.
 - **Select Receivers**: Select the receiver. Up to 3 receivers can be configured.
 - **Receiver**: The name of user to be notified.
 - **Receiver's Address**: The Email address of user to be notified.
 - **Enable Attached Pictures**: Check the Enable Attached Picture box if you want to send email with attached alarm images. The interval is the time of two adjacent alarm images. You can also set SMTP port and enable SSL here.
 - **Interval**: The interval refers to the time between two actions of sending attached pictures.
 - **E-mail Test**: Sends a test message to verify that the SMTP server can be reached.
6. Click **Apply** to save your settings.
7. Click the **Test** button to test your Email settings. The corresponding **Attention** message box will pop up.

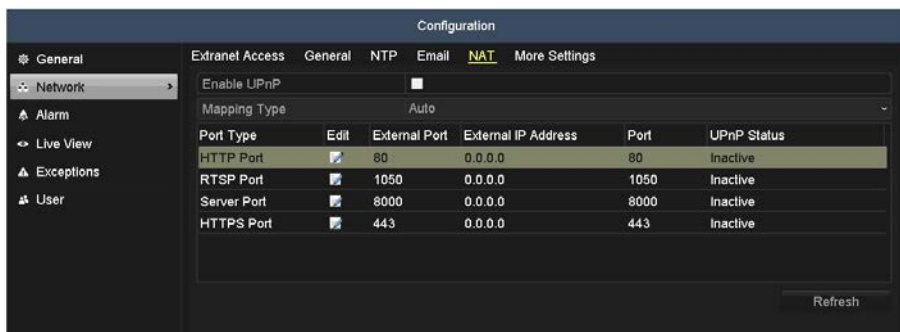


7.7 Configuring UPnP™

The Universal Plug and Play (UPnP™) feature allows the device to seamlessly discover other network devices and establish functional network services for data sharing, communications, etc. You can use the UPnP function to enable the fast connection of the device to the WAN via a router without port mapping.

If you want to enable the UPnP function of the device, you must enable the UPnP function of the router to which your device is connected. When the network working mode of the device is set as multi-address, the Default Route of the device should be in the same network segment as that of the LAN IP address of the router.

1. Open the Network NAT menu. Go to **Menu | Configuration | Network | NAT**



2. Check the **Enable UPnP** box to enable UPnP.
3. In the UPnP menu, you can click the icon in the **Edit** column to change the External Port number associated with the Port Type. When finished, click **Refresh**, and then click **Apply** to save your settings.

SECTION 8

System Maintenance

The Maintenance menus provide several displays that report system device information, log information, and network traffic. Features also include the export and import of the system configuration file, firmware upgrade, and factory reset.

8.1 System Information

The System Information displays include status reports of the DVR, cameras, record settings, the network and the HDDs. The configuration settings shown on these displays can only be changed in other areas of the menu system.

1. To open the System Information displays, go to **Menu | Maintenance | System Info**:



The Device Info tab includes information about the DVR. Other tabs show the configuration settings for **Cameras**, **Recordings**, **Network**, and **HDD** settings. To view information about other parts of the system, click the appropriate tab.

8.2 Log Information

System log information is continuously generated and saved in log records. System logs include the following types of entries:

- Alarms events – Start/stop motion detection, start/stop tamper detection etc.
- Exception conditions – Video loss, illegal login, HDD full/error, IP camera disconnected, network disconnected, etc.
- Information events – Start/stop recording, local/network HDD information, HDD S.M.A.R.T., etc.
- Operation events – power on, login, local operation logout, etc.

System logs can be searched and sorted for specific entries, and archived for use later. You can also search for video clips through system logs.

8.2.1 Log Search

1. Open the Log Information screen. Go to **Menu | Maintenance | Log Information**

SECTION 8: SYSTEM MAINTENANCE

System Maintenance

System Info Log Search Log Export

Log Information

Import/Export

Upgrade

Default

Net Detect

HDD Detect

Start Time 29-08-2014 00:00:00

End Time 29-08-2014 23:59:59

Major Type All

Minor Type

Alarm Input

Alarm Output

Start Motion Detection

Stop Motion Detection

Start Video Tampering Detection

Stop Video Tampering Detection

No.	Major Type	Time	Minor Type	Parameter	Play	Details
Total: 0 P: 1/1						

Live View Export Search Back

- Select a **Start Time**, **End Time**, **Major Type** and **Minor Type**. You can modify your search to find only specific log messages. In the example below, the search criterion specified are "All" (Major Type) entries with "All" (Minor Type).
- Click **Search**. If the search didn't find a file matching your search criteria, the message **No matched log file.** will appear.

System Maintenance

System Info Log Search Log Export

Log Information

Import/Export

Upgrade

Default

Net Detect

HDD Detect

Start Time 29-08-2014 00:00:00

End Time 29-08-2014 23:59:59

Major Type All

Minor Type

Alarm Input

Alarm Output

Start Motion Detection

Stop Motion Detection

Start Video Tampering Detection

Stop Video Tampering Detection

No.	Major Type	Time	Minor Type	Parameter	Play	Details
1	Operation	29-08-2014 09:16:11	Power On	N/A	—	✓
2	Information	29-08-2014 09:16:11	Local HDD Information	N/A	—	✓
3	Information	29-08-2014 09:16:15	Start Recording	N/A	⏮	✓
4	Information	29-08-2014 09:16:15	Start Recording	N/A	⏮	✓
5	Information	29-08-2014 09:16:15	Start Recording	N/A	⏮	✓
6	Information	29-08-2014 09:16:15	Start Recording	N/A	⏮	✓
Total: 431 P: 1/5						

Live View Export Search Back

- You can Export the result of the log search (click Export), choose a log entry with record file and click the playback button to play the file, or click the icon in the Details column to see more information about the entry. The Log Information Details screen is shown below.

Log Information	
Time	29-08-2014 09:16:15
Type	Information--Start Recording
Local User	N/A
Host IP Address	N/A
Parameter Type	N/A
Camera No.	A2
Description:	
Camera: A2 starts recording. Record status: Record enabled: Yes Event parameters: Disabled Record type: Continuous Motion detected on camera: None Alarm detected on camera: None	
<div>Previous</div> <div>Next</div> <div>OK</div>	

8.2.2 Log Export

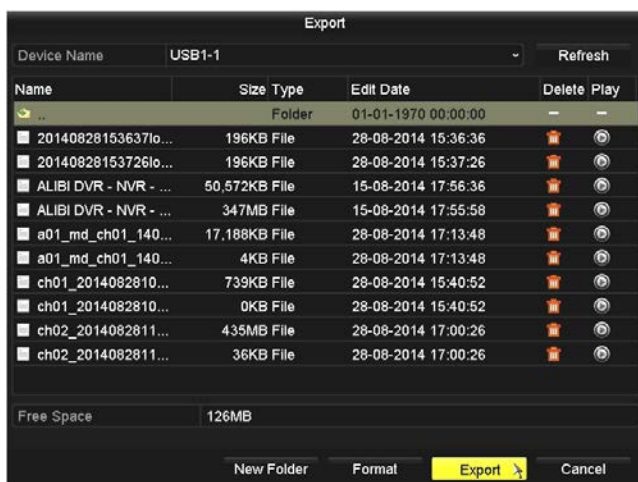
Log information can be exported to a backup device such as a USB storage device. The exported log file is in .txt format and readable with an ASCII text viewer such as Microsoft® Windows® Notepad or Wordpad. The filename, prefixed with the date and timestamp, in the format *YYYYMMDDHHMMSSlogBack.txt*. To export the log file:

- Attach an USB storage device, such as a USB flash drive or USB disk drive, to a DVR USB port.
- Open the Log Information menu. Go to **Menu | Maintenance | Log Information**
- Click the **Log Export** tab to display the DVR storage devices.
- Check the select box for the storage devices that contain log information. In the example below, the HDD is selected.

SECTION 8: SYSTEM MAINTENANCE



- Click the **Export** button at the bottom of the screen.



- On the **Device Name** line, open the drop down list and select the destination for the file export.
- Select the directory where you want to copy the files, or create a **New Folder**.
- Click the **Export** button to start the **Export**. Allow the operation to finish before continuing.

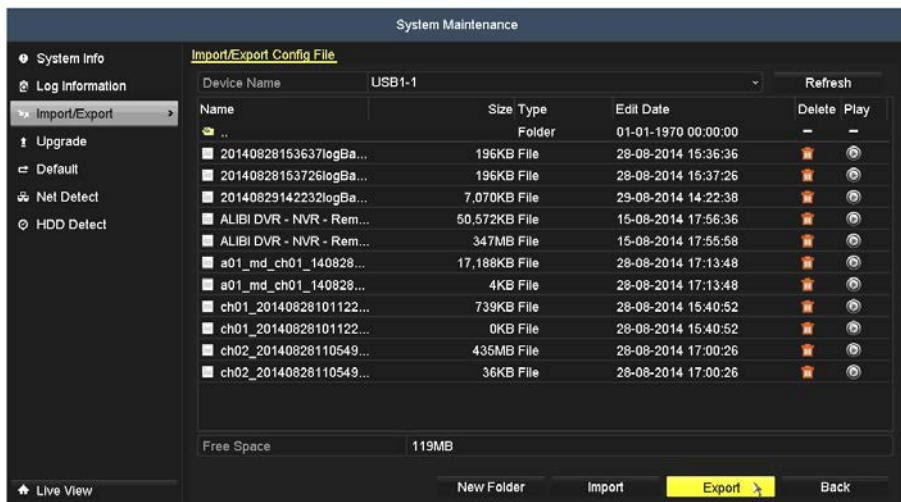


- Check the Export result on a computer by opening a file that was saved.

8.3 Import / Export system configuration

You can export the DVR configuration, then import the file later to restore the earlier configuration.

- Attach an USB storage device, such as a USB flash drive or USB disk drive, to the DVR USB port.
- Open the **Import/Export** menu. Go to **Menu | Maintenance | Import/Export**



Export configuration file

- On the **Device Name** line, open the drop down list and select the destination for the exported configuration file.

SECTION 8: SYSTEM MAINTENANCE

- Click the **Export** button to start the export. Allow the operation to finish before continuing. When the export operation is successful, an “Attention” “Export succeeded” pop-up window will open.



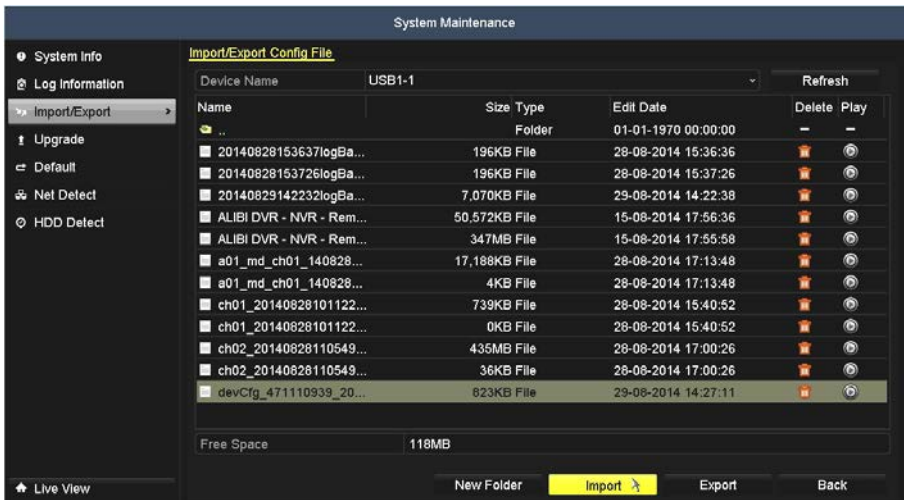
- Click **OK** to close the pop-up window.

NOTE The configuration backup file is a binary file with a timestamp in the format `devCfg_YYYYMMDDHHMMSS.bin`

- Record the name of the exported file for future reference.

Import configuration file

- Attach an USB storage device, such as a USB flash drive or USB disk drive, with the configuration file to a DVR USB port.
- Open the **Import/Export** menu. Go to **Menu | Maintenance | Import/Export**
- On the **Device Name** line, open the drop down list and select the source device with the exported configuration file. The configuration backup file is a binary file with a timestamp in the format `devCfg_YYYYMMDDHHMMSS.bin`



- 4. In the file list of the USB device, highlight the DVR configuration file you want to load, and then click **Import** (see the screen above).
- 5. When the Attention message box opens, click **Yes**.
- 6. Allow the DVR to fully reboot, then use it normally.

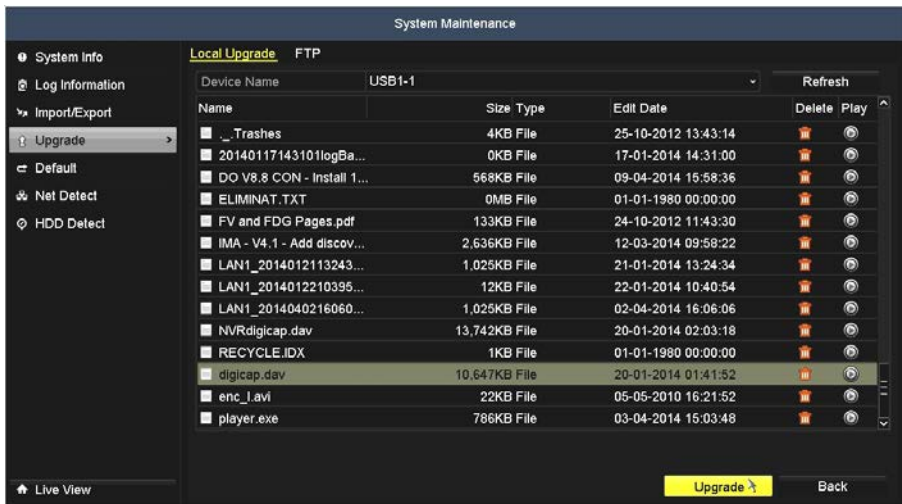
8.4 Upgrade Firmware

You can upgrade the firmware through a local device or remote FTP server. You should check the current Firmware version before upgrading your DVR firmware. Firmware upgrade should only be performed when recommended by your DVR support organization.

- 1. To check the current firmware version, open the System information display. Go to **Menu | Maintenance | System Info**

System Maintenance	
System Info	Device Info Camera Record Alarm Network HDD
Log Information	Device Name Embedded Net DVR
Import/Export	Model ALI-HVR3004H
Upgrade	Serial No. 0420140705AAWR471110939WCVU
Default	Firmware Version V3.0.1, Build 140808
Net Detect	Encoding Version V5.0, Build 140718
HDD Detect	

- 1. If the firmware needs to be upgraded, attach an USB storage device, such as a USB flash drive or USB disk drive, that contains the firmware upgrade file to a DVR USB port.
- 2. Click the **Upgrade** tab on the left.



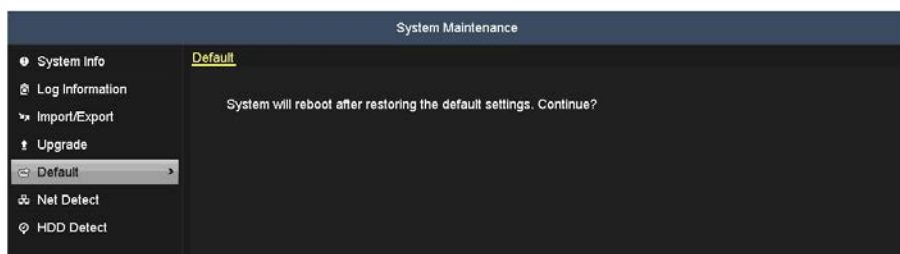
3. If installing firmware from a local device such as a USB flash drive or disk:
 - a. Connect the local device to the DVR, if necessary.
 - b. Open the **Device Name** drop down list and select the device that contains the firmware.
 - c. Click the firmware file you want to load.
 - d. Click the **Upgrade** button, then follow the on-screen instructions for completing the upgrade.
4. If installing firmware from a FTP server:
 - a. Click the FTP upgrade tab at the top of the menu.
 - b. Click the firmware file you want to load.
 - c. Click the **Upgrade** button, then follow the on-screen instructions for completing the upgrade.
5. Open the System Information screen and verify that the new firmware version is installed.
6. Perform a DVR **Shutdown**, then power it off.
7. Power the DVR on.

8.5 Default

The default option will reset the DVR to its factory settings. Except the network parameters (including IP address, subnet mask, gateway, MTU, NIC working mode, default route and server port), all other configuration parameters are restored to factory default settings.

To restore the factory default configuration:

1. Open the Log Information menu. Go to **Menu | Maintenance | Default**



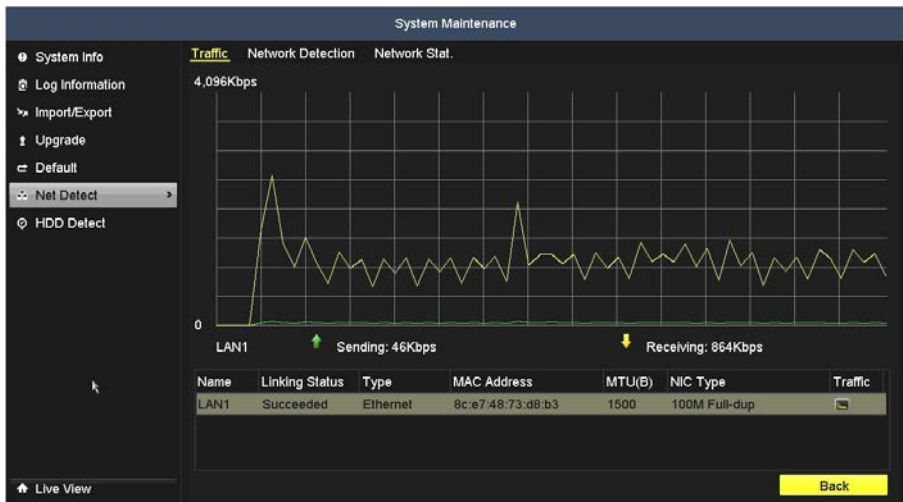
2. Click **OK**, then allow the DVR to reboot before continuing.

8.6 Net Detect

8.6.1 Checking Network Traffic

You can see real-time information of your DVR network traffic, such as linking status, MTU, sending/receiving rate, etc. The traffic data is refreshed every 1 second.

Open the Network Traffic menu. Go to **Menu | Maintenance | Net Detect**



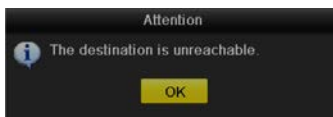
You can view the sending rate and receiving rate information on the interface. Traffic data is refreshed every 1 second.

8.6.2 Testing Network Delay and Packet Loss

1. Open the Network Traffic menu. Go to **Menu | Maintenance | Net Detect**
2. Click the **Network Detection** tab to open the menu.
3. Click on the **Destination Address** field, then use the virtual keyboard to enter a address to connect (*ping*) to. In the field shown below, 1492.168.75.3 was entered in the destination field.



4. Click the **Test** button to begin the test for network delay and packet loss. The testing result appear in the window. If the testing is failed, the error message box will open.

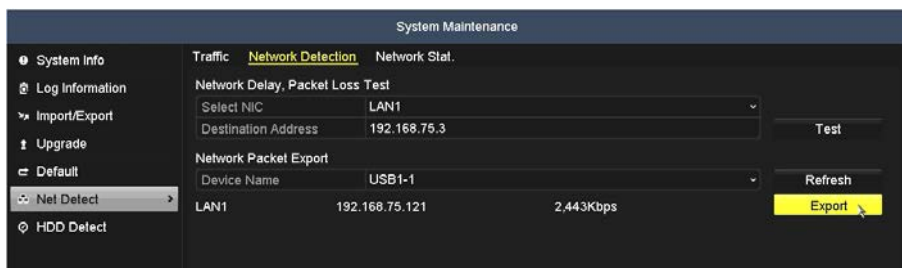


8.6.3 Exporting Network Packet

By connecting the DVR to network, the captured network data packet can be exported to a USB device such as a flash drive, HDD, DVD-R/W and other local USB backup devices.

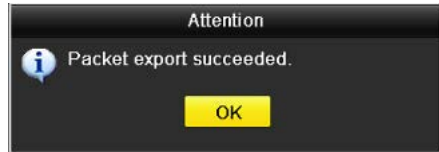
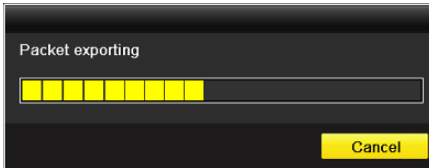
1. Open the Network Traffic menu. Go to **Menu | Maintenance | Net Detect**
5. Click the **Network Detection** tab to open the Network Detection menu.
6. Select the backup device from the **Device Name** drop down list. In the example below, the packet is being exported to USB1-1.

Note: Click the **Refresh** button if the connected local backup device cannot be displayed. When it fails to detect the backup device, verify that it is compatible with the DVR. Format the backup device if the format is incorrect.



Note: Click the **Refresh** button if the connected local backup device cannot be displayed. When it fails to detect the backup device, verify that it is compatible with the DVR. Format the backup device if the format is incorrect.

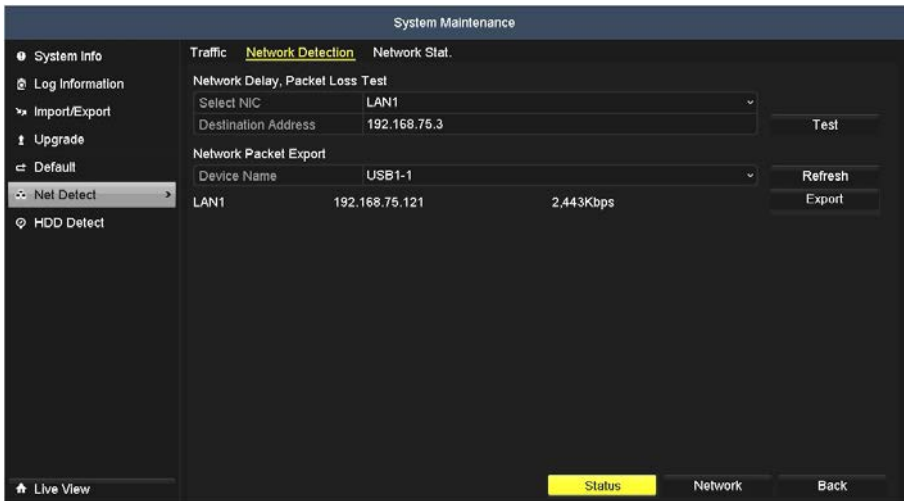
- Click the **Export** button to start the export.
- When the export is complete, click **OK**. Up to 1 M data can be exported during one operation.



8.6.4 Checking the network status

You can also check the network status and quickly set the network parameters.

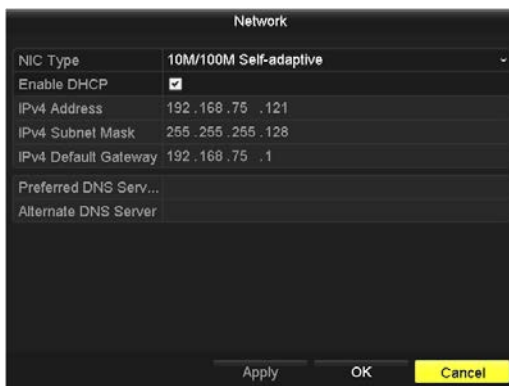
- Open the Network Traffic menu. Go to **Menu | Maintenance | Net Detect**
- Click the **Network Detection** tab to open the Network Detection menu.



- Click the **Status** button at the bottom of the screen to report the status.



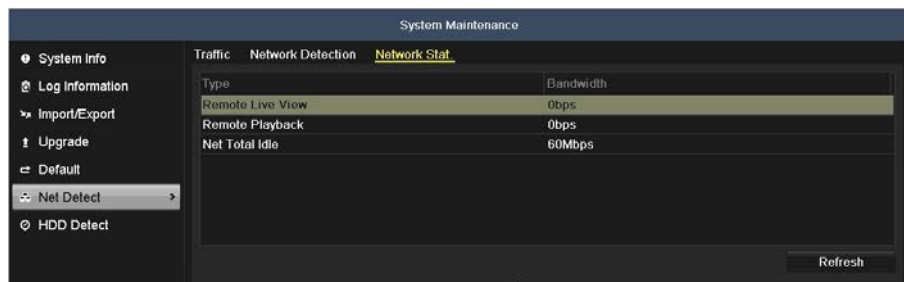
- If the message box shows an error, click the **Network** button to open the **Network** parameters menu. After changing parameters, click **Apply**, and then click **OK** to save your settings.



8.6.5 Checking Network Statistics

Use the following procedure to view real time network status of your DVR.

- Open the Network Traffic menu. Go to **Menu | Maintenance | Net Detect**
- Click the **Network Stat.** tab to open the Network status report.



Use this display to check the bandwidth of the IP Camera, bandwidth of Remote Live View, bandwidth of Remote Playback, bandwidth of Net Receive Idle and bandwidth of Net Send Idle.

- Click the **Refresh** button to show the current status.

SECTION 9

Remote Access

If your DVR is connected to a local network (LAN), you can access it from another computer on the LAN through Microsoft® Internet Explorer® 11. Internet Explorer 9 or 10 can also be used, but must be run in "Compatibility" mode for the IP address you are logging into.

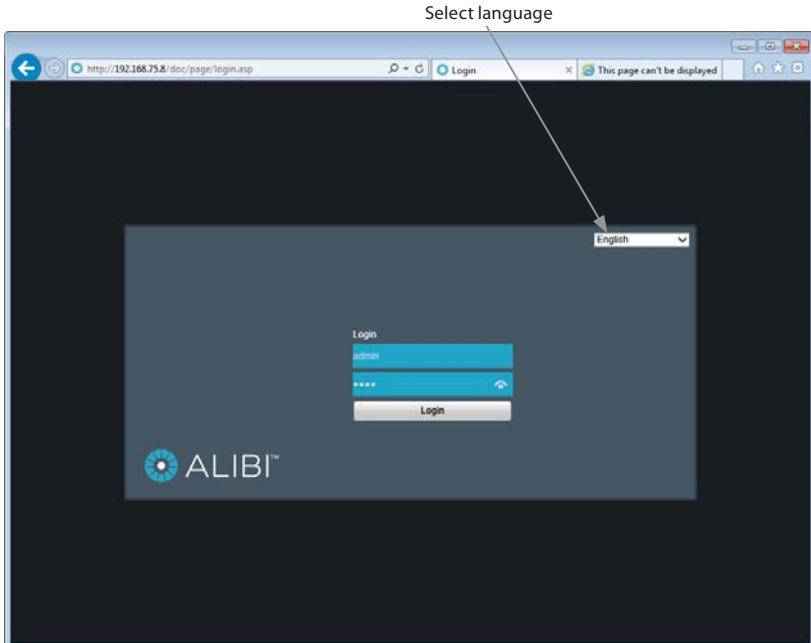
When connecting to the DVR, you must enter a User Name and Password. Note that some user permissions disallow remote access and/or features of this access method.

When logging into the DVR from a remote computer for the first time, you must install a plug-in program named WebComponents. The procedure for installing the program using Internet Explorer 11 is shown below. Subsequent logins do not require you to reinstall WebComponents.

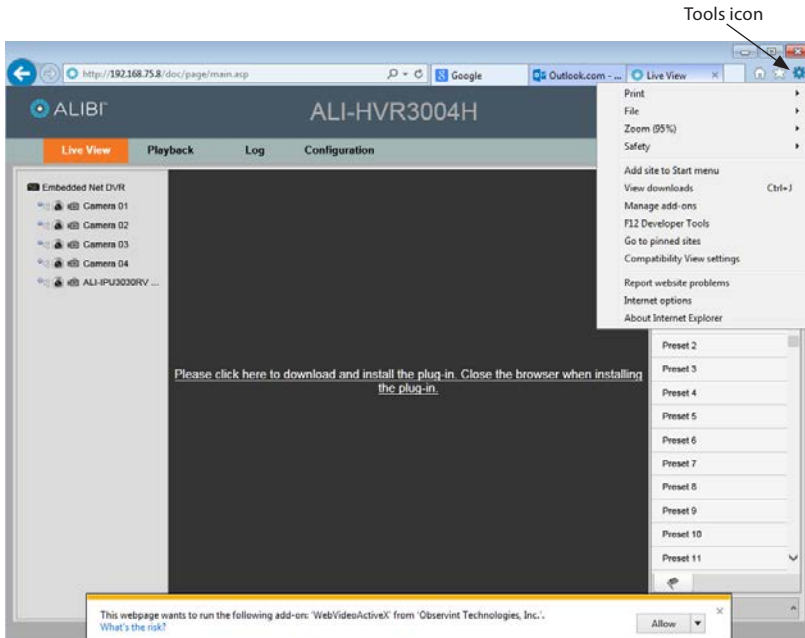
9.1 Remote login

To access the DVR from a computer on the LAN:

1. Open an Internet browser on your remote computer and enter the IP address of the DVR in the URL field. In the example below, the IP address of the DVR is 192.168.75.8.

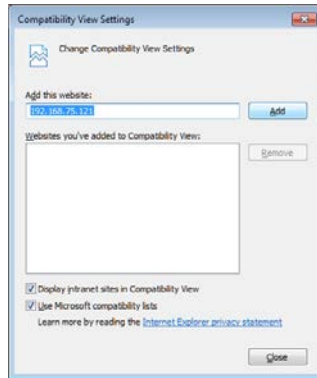


2. In the login window, enter your **User Name** and **Password** in the appropriate fields, then click **Login**. The default **User Name** and **Password** for the DVR is **admin** and **1111**.
3. If this is the first time you are logging into a camera at this IP address AND you are using Internet Explorer 10 or newer, you must configure it for Compatibility mode:
 - a. In Internet Explorer, click the Tools icon (located to the right of the tabs), then select Compatibility View settings from the drop-down menu.

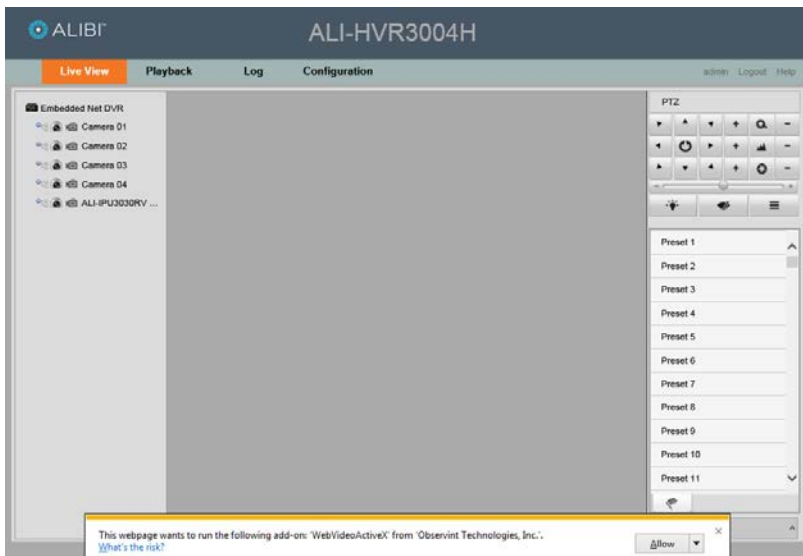


- b. In the Compatibility View Settings window, ensure that the IP address of your camera is in the **Add this website** field, then click **Add**.

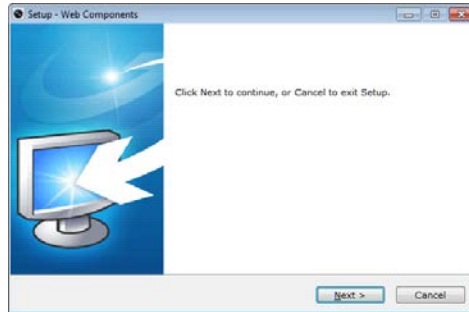
SECTION 9: REMOTE ACCESS



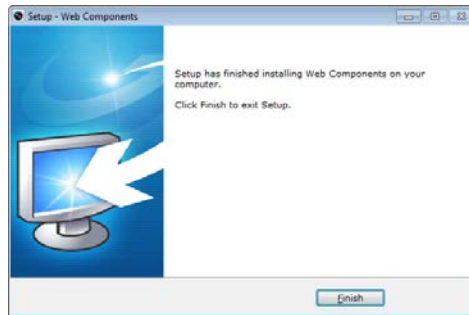
- c. After clicking **Add**, the IP address will appear in the Websites list. Click **Close**.
4. If this login is the first login to the DVR from your computer and browser, continue with the following sub-steps:
 - a. After a successful login to the DVR, a message will appear at the bottom of the screen requesting to Allow the add-on **WebVideoActiveX**. Click Allow to continue.



- b. In the **Setup - Web Components** window opens, click **Next** to continue.



- c. Allow the plug-in installation to complete. When the following window appears, click **Finish**.

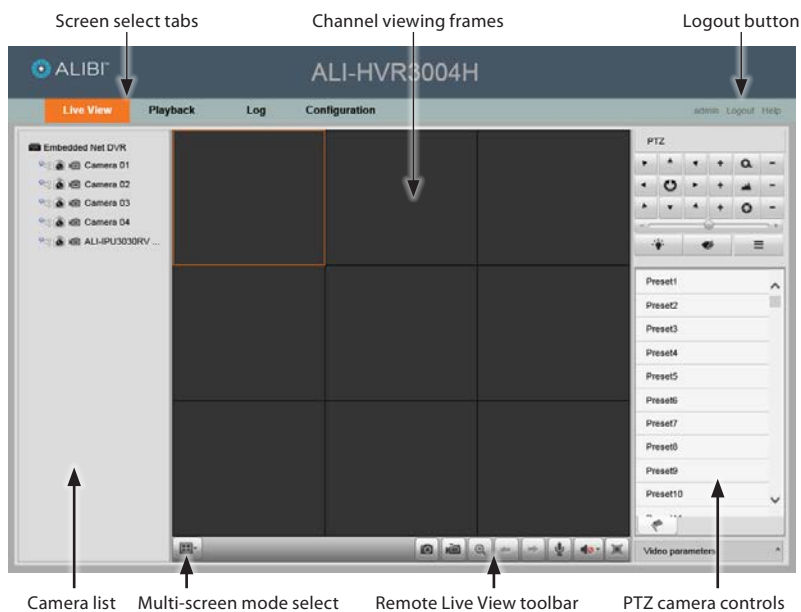


9.2 Remote Live View screen

The Live View window initially appears in a multi-screen configuration with no live view images shown. You can:

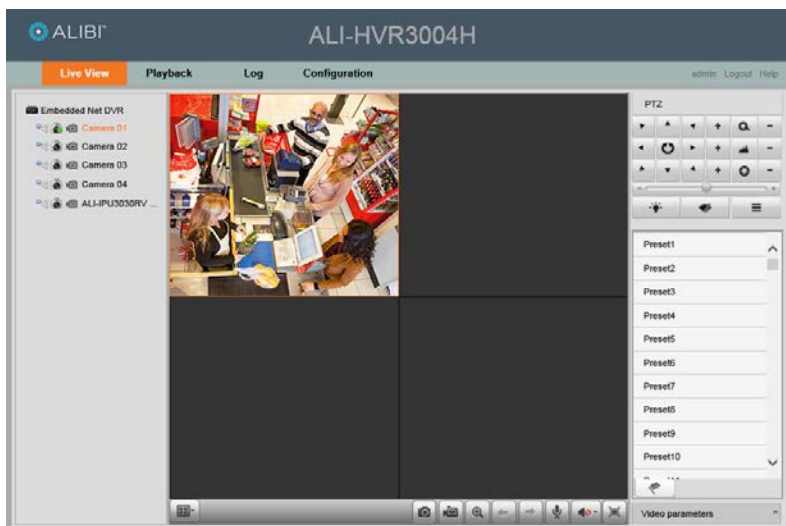
- Change the viewing screen layout by clicking the multi-screen select button and selecting the icon for a 1 screen or a 2 x 2 layout.

SECTION 9: REMOTE ACCESS

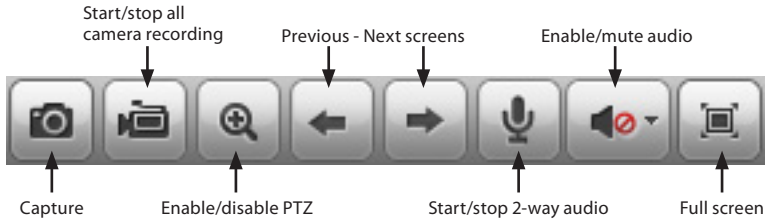


To view video from a camera in the Live View screen:

- Click a viewing frame to select it. When selected, the frame is surrounded by a bright box.
- Double click the camera channel you want to see.

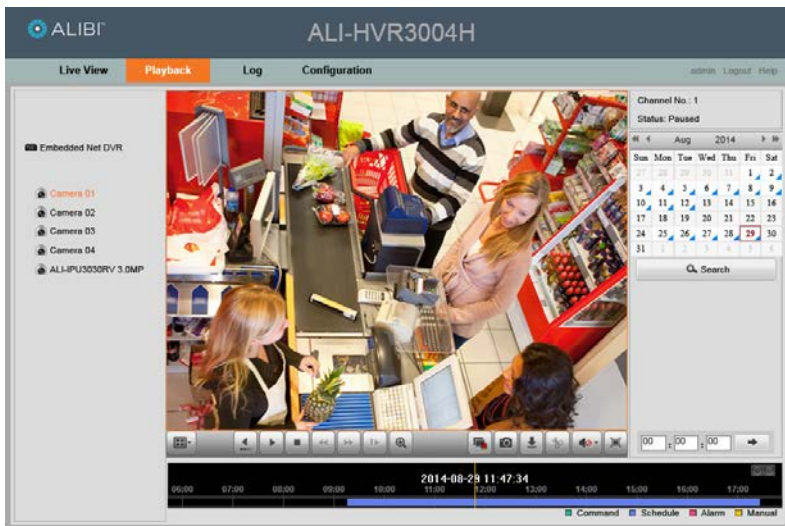


- To expand the image to full frame, double click the image in the viewing frame. To return to normal viewing mode, press **ESC** (keyboard escape key).
- You can control many Live View functions quickly with the Live View toolbar. The function of the toolbar icons are similar to those on the DVR channel viewing frame.

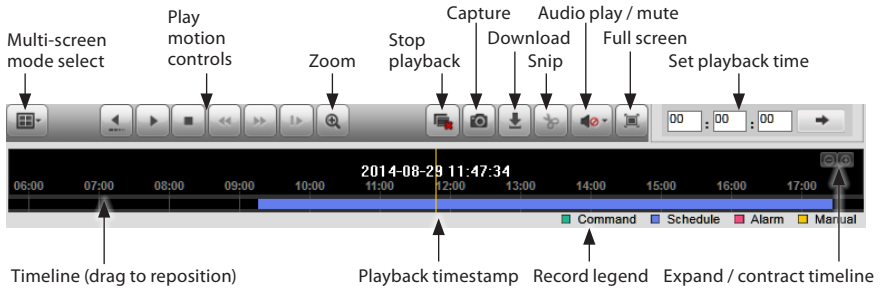


9.3 Remote Playback screen

Open the Playback screen by clicking **Playback** in the screen header. The Playback screen allows you to review video recorded from one camera or several cameras concurrently. Also, video can be downloaded to your local computer.



SECTION 9: REMOTE ACCESS



To playback recorded video:

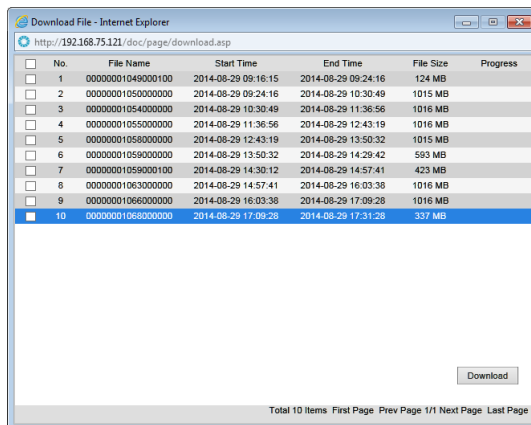
- Click the multi-screen mode button to select the number of viewing frames you need to display. You can select either a 1, 2 x 2, or 3 x 3 frame pattern.
- In the left frame, click the camera channel you want to play recorded video from. In the example above, *Camera 01* was selected.
- In the right frame, click the date when the video was recorded, then click the **Search** button. In the example above, August 29, 2014 was selected.
- At the bottom of the screen, drag the timeline left or right to find when video was recorded for the camera selected. The condition that caused video to be recorded is indicated by a colored band on the timeline. The color legend is shown below.
- Click the **Play** button to begin playing video.

To Download recorded video:

NOTE

The location where recorded video downloads and captures during playback are saved is shown on the **Configuration | Location Configuration** screen.

1. Click the **Download** icon.



2. Check the box of the video segment you want to download.
3. Click the **Download** button.

9.4 Remote Log screen

Open the Log screen by clicking **Log** in the screen header. The DVR log report is created by specifying a search criteria using the menu in the right frame (or using the default options), then clicking the **Search** button. The search criteria menu includes filters to search for Major and Minor type events, and specify the start and end time of the report.

No.	Time	Major Type	Minor Type	Channel No.	Local/Remote User	Remote Host IP
1	2014-08-29 09:16:11	Operation	Power On			0.0.0.0
2	2014-08-29 09:16:11	Information	HDD Information			0.0.0.0
3	2014-08-29 09:16:15	Information	Start Recording	A1		0.0.0.0
4	2014-08-29 09:16:15	Information	Start Recording	A2		0.0.0.0
5	2014-08-29 09:16:15	Information	Start Recording	A3		0.0.0.0
6	2014-08-29 09:16:15	Information	Start Recording	A4		0.0.0.0
7	2014-08-29 09:16:15	Operation	Local Login		admin	0.0.0.0
8	2014-08-29 09:16:16	Information	Start Recording	D1		0.0.0.0
9	2014-08-29 09:16:20	Alarm	Start Motion Detection	D1		0.0.0.0
10	2014-08-29 09:16:39	Information	S.M.A.R.T. Information	1		0.0.0.0
11	2014-08-29 09:17:36	Alarm	Stop Motion Detection	D1		0.0.0.0
12	2014-08-29 09:17:38	Alarm	Start Motion Detection	D1		0.0.0.0
13	2014-08-29 09:18:05	Alarm	Stop Motion Detection	D1		0.0.0.0
14	2014-08-29 09:18:10	Alarm	Start Motion Detection	D1		0.0.0.0
15	2014-08-29 09:20:00	Alarm	Stop Motion Detection	D1		0.0.0.0
16	2014-08-29 09:20:09	Alarm	Start Motion Detection	D1		0.0.0.0
17	2014-08-29 09:20:42	Alarm	Stop Motion Detection	D1		0.0.0.0
18	2014-08-29 09:20:49	Alarm	Start Motion Detection	D1		0.0.0.0
19	2014-08-29 09:22:00	Alarm	Stop Motion Detection	D1		0.0.0.0
20	2014-08-29 09:22:19	Alarm	Start Motion Detection	D1		0.0.0.0
21	2014-08-29 09:22:37	Alarm	Stop Motion Detection	D1		0.0.0.0
22	2014-08-29 09:22:41	Alarm	Start Motion Detection	D1		0.0.0.0
23	2014-08-29 09:24:09	Alarm	Stop Motion Detection	D1		0.0.0.0
24	2014-08-29 09:24:15	Alarm	Start Motion Detection	D1		0.0.0.0
25	2014-08-29 09:25:02	Alarm	Stop Motion Detection	D1		0.0.0.0
26	2014-08-29 09:25:05	Alarm	Start Motion Detection	D1		0.0.0.0

Log reports can be saved in either text or Excel formats by clicking the **Save Log** icon.

9.5 Remote Configuration screen

Open the Configuration screen by clicking **Configuration** in the screen header. The Configuration menu enables you to view the DVR configuration and make configuration changes. The User Name you use to login to the DVR must have administrative privileges to change the DVR configuration.

Options in the configuration menu are identical to those in the embedded DVR **Menu** system. For more information on how to use these options, refer to the DVR **Menu** descriptions in previous sections of this manual. After making configuration changes click **Save** to apply your changes.

SECTION 9: REMOTE ACCESS

The screenshot shows the ALIBT ALI-HVR3004H Configuration interface. The top navigation bar includes 'Live View', 'Playback', 'Log', and 'Configuration' (highlighted in orange). The left sidebar shows a tree view of configuration options: 'Configuration' (expanded), 'Local Configuration', 'Remote Configuration', 'Device Parameters' (expanded), 'Device Information' (highlighted), 'Time Settings', 'Camera Settings', 'Network Settings', 'Alarm Settings', 'Exception', 'User Management', 'HDD Management', 'Maintenance', and 'Camera Management'. The main area is titled 'Basic Information' and contains the following fields:

Field	Value
Device Name	Embedded Net DVR
Device No.	255
Model	ALI-HVR3004H
Serial No.	ALI-HVR3004H5425140705AAW04711 (003)WCVU
Firmware Version	V2.0.1 build 140908
Encoding Version	V5.0 build 140718
Number of Channels	5
Number of HDDs	1
Number of Alarm Input	1
Number of Alarm Output	1

A 'Save' button is located at the bottom of the form.

The location of local files is defined on the **Configuration | Local Configuration** screen.

The screenshot shows the ALIBT ALI-HVR3004H Configuration interface, specifically the 'Local Configuration' tab. The top navigation bar and left sidebar are identical to the previous screenshot. The main area is titled 'Local Configuration' and contains the following fields:

Field	Value
Protocol	TCP
Stream Type	Main Stream
Image Size	Auto-8M
Record File Size	512M
Live View Performance	Balanced
Auto Start Live View	No
Rules	Disable

Below these fields are five rows, each with a text input field and a 'Browse' button:

Field	Value	Action
Save record files to	C:\Users\DigipriWeb\RecordFiles	Browse
Save snapshots in live view to	C:\Users\DigipriWeb\CaptureFiles	Browse
Save snapshots when playback to	C:\Users\DigipriWeb\PlaybackPics	Browse
Save clips to	C:\Users\DigipriWeb\PlaybackFiles	Browse
Save downloaded files to	C:\Users\DigipriWeb\DownloadFiles	Browse

A 'Save' button is located at the bottom of the form.

Options in the configuration menu function identically as those in the embedded DVR **Menu** system. For more information on how to use these options, refer to the DVR **Menu** descriptions in previous sections of this manual. After making configuration changes click **Save** to apply your changes.

SECTION 10

Cleaning

Clean the camera lens and IR lamp shield with a mild glass cleaning solution and a lint free cloth.

- Remove all foreign particles, such as plastic or rubber materials, attached to the camera housing. These may cause damage to the surface over time.
- Dust can be removed from equipment by wiping it with a soft damp cloth. To remove stains, gently rub the surface with a soft cloth moistened with a mild detergent solution, then rinse and dry it with a soft cloth.



Do not use benzene, thinner or other chemical products on the camera assembly; these may dissolve the paint and promote damage of the surfaces. Before using any chemical product, read the instructions carefully.

SECTION 11

Specifications

Section	Item	ALI-HVR3004H	ALI-HVR3008H	ALI-HVR3016H
Video/Audio Input	Video Compression	H.264		
	Video Input	4 channels	8 channels	16 channels
	Supported camera resolutions	720p30, 720p60,	720p30, 720p60, 1080p30	720p30, 720p60, 1080p30
	Video Input Interface	BNC (1.0 Vp-p, 75 Ω)		
	Audio Compression	G.711u		
	Audio Input	1 channel, RCA (2.0 Vp-p, 1 kΩ)		
	Two-way audio input	1 channel, RCA (2.0 Vp-p, 1 kΩ) (using the audio input)		
Video/Audio Output	HDMI / VGA Output	1920 × 1080 × 60 Hz, 1280 × 1024 × 60 Hz, 1280 × 720 × 60 Hz, 1024 × 768 × 60 Hz		
	Frame Rate	Main stream: 1080P(non-real-time) / 720p / VGA / 960H / 4CIF / CIF Sub-stream: 960H (non-real-time) / 4CIF (non-real-time) / CIF / QCIF / QVGA		
	Synchronous Playback	4 channels	8 channels	16 channels
	Video Bit Rate	32 kbps ~ 6 Mbps		
	Stream Type	Video / Video & audio		
	Audio Output	1 channel RCA (linear, 1 KΩ)		
	Audio Bit Rate	64 kbps		
	Dual Stream	Supported		
	Stream type(s)	Video, video and audio		
	Playback resolution	1080p / 720p / VGA / 960H / 4CIF / CIF / QVGA / QCIF		
Network Management	Remote connections	128		
	Network protocols	TCP/IP, PPPoE, DHCP, DNS, DDNS, NTP, SADP, SMTP, SNMP, NFS, iSCSI, UPnP™, HTTPS		
Hard Disk	Capacity	Up to 4TB		
	SATA	1 SATA interface		2 SATA interfaces
External Interface	Network Interface	1 10M / 100M self-adaptive Ethernet interface		1 10M / 100M / 1000M self-adaptive Ethernet interface
	USB Interface	2 × USB 2.0		
	Serial Interface	1 standard RS-485 interface, half-duplex		

SECTION 11: SPECIFICATIONS

Section	Item	ALI-HVR3004H	ALI-HVR3008H	ALI-HVR3016H
General	Power supply	12 Vdc		
	Consumption	≤ 15 W	≤ 20 W	≤ 30 W
	Working temperature	14°F ~ 131 °F (-10 °C ~ +55 °C)		
	Working humidity	10 % ~ 90 %		
	Chassis	1 U chassis		15.0" 1 U chassis
	Dimension ($w \times d \times h$)	12.4" × 9.53" × 1.8" (315 mm × 242 mm × 45 mm)		15.0" × 11.4" × 1.89" (380 mm × 290 mm × 48 mm)
	Weight	≤ 3.3 lb (1.5 Kg)		≤ 4.4 lb (2 Kg)

APPENDIX A Glossary

Dual Stream: Dual stream is a technology used to record high resolution video locally while transmitting a lower resolution stream over the network. The two streams are generated by the DVR, with the main stream having a maximum resolution of 1080p and the sub-stream having a maximum resolution of 960H (WD1).

HDD: Acronym for Hard Disk Drive. A storage medium which stores digitally encoded data on platters with magnetic surfaces.

DHCP: Dynamic Host Configuration Protocol (DHCP) is a network application protocol used by devices (DHCP clients) to obtain configuration information for operation in an Internet Protocol network.

HTTP: Acronym for Hypertext Transfer Protocol. A protocol to transfer hypertext request and information between servers and browsers over a network

PPPoE: PPPoE, Point-to-Point Protocol over Ethernet, is a network protocol for encapsulating Point-to-Point Protocol (PPP) frames inside Ethernet frames. It is used mainly with ADSL services where individual users connect to the ADSL transceiver (modem) over Ethernet and in plain Metro Ethernet networks.

DDNS: Dynamic DNS is a method, protocol, or network service that provides the capability for a networked device, such as a router or computer system using the Internet Protocol Suite, to notify a domain name server to change, in real time (ad-hoc) the active DNS configuration of its configured hostnames, addresses or other information stored in DNS.

Hybrid DVR: A hybrid DVR is a combination of a DVR and DVR.

NTP: Acronym for Network Time Protocol. A protocol designed to synchronize the clocks of computers over a network.

NTSC: Acronym for National Television System Committee. NTSC is an analog television standard used in such countries as the United States and Japan. Each frame of an NTSC signal contains 525 scan lines at 60 Hz.

DVR: Acronym for Digital Video Recorder. An DVR can be a PC-based or embedded system used for centralized management and storage for IP cameras, IP Domes and other DVRs.

PAL: Acronym for Phase Alternating Line. PAL is also another video standard used in broadcast televisions systems in large parts of the world. PAL signal contains 625 scan lines at 50 Hz.

PTZ: Acronym for Pan, Tilt, Zoom. PTZ cameras are motor driven systems that allow the camera to pan left and right, tilt up and down and zoom in and out.

USB: Acronym for Universal Serial Bus. USB is a plug-and-play serial bus standard to interface devices to a host computer.

APPENDIX B **FAQ**

Q Why does my DVR make a beeping sound after booting?

A The possible reasons for the warning beep are:

- a. There is no HDD installed in the DVR.
- b. The HDD is not initialized.
- c. HDD error

To cancel the beeping sound and use the DVR without HDD, open the **Configuration | Exception** menu and de-select the Audible Warning.

Q Why does the DVR seem unresponsive when operating with the IR remote control?

A Please read through the section Using the IR Remote Control, then check:

- a. Nothing is blocking the IR sensor on the front of the DVR.
- b. The batteries are installed correctly in the remote, making sure that the polarities of the batteries are not reversed.
- c. The battery power is not depleted.
- d. The remote has not been tampered with.
- e. There are no fluorescent lamps in use nearby.

Q Why is there no video recorded after setting the motion detection?

A If there are no recorded video after setting the motion detection, please check the guidelines in Chapter 5.

- a. The recording schedule is setup correctly. See **Menu | Record | Schedule**.
- b. The motion detection area is configured correctly. See **Menu | Cameras | Motion**.
- c. The channels are being triggered for motion detection. See **Menu | Cameras | Motion**, check the Enable Motion Detection option, the Sensitivity setting, motion detection zones.

Q Why doesn't the DVR detect my USB export device for exporting recorded files?

A There's a chance that the DVR and your USB device is not compatible. Please refer to our company's website to view a list of compatible devices.

Q Why doesn't my remote control doesn't work?

A There may be several reasons. Begin by checking the following:

- Make sure you have installed batteries properly in the remote control.
- Make sure you are aiming the remote control at the IR receiver on the front panel, and the sensor is not obstructed or dirty.

If there is no response after you press any button on the remote, follow the procedure below to troubleshoot:

- a. Go to **Menu | Settings | General | More Settings** menu using the mouse.
- b. Check and remember the device ID#. The default ID# is 255. This ID# is valid for all the IR remote controls.
- c. Press the **DEV** button on the remote control.
- d. Enter the device ID# from step b.
- e. Press the **ENTER** button on the remote control.

If the remote control is operating properly, but there is still no response from the remote, replace the remote control and try again, or contact your DVR provider.

APPENDIX C HDD Installation

The following procedures illustrate hard disk drive (HDD) installation in a ALI-HVR3000H series DVR without an HDD. If you purchased your DVR without a HDD, or you want to replace the HDD installed in your DVR, use this procedure as a guideline.

C.1 DVR compatible HDDs

For the best performance of your system, install only a high-reliability security grade HDD. Security grade HDDs are designed to stream video efficiently.

C.2 HDD Installation

The ALI-HVR3004H and ALI-HVR3008H DVRs will accommodate one internal HDD. The HDD attaches to the chassis with four screws inserted up through the underside of the chassis. The ALI-HVR3016H DVR can hold 2 HDDs.

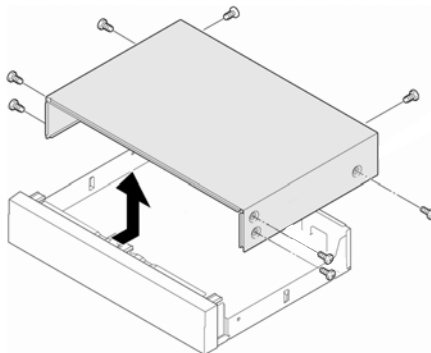
Cables and screws needed to install the HDD are provided.

11.5.1 ALI-HVR3004H and ALI-HVR3008H HDD installation



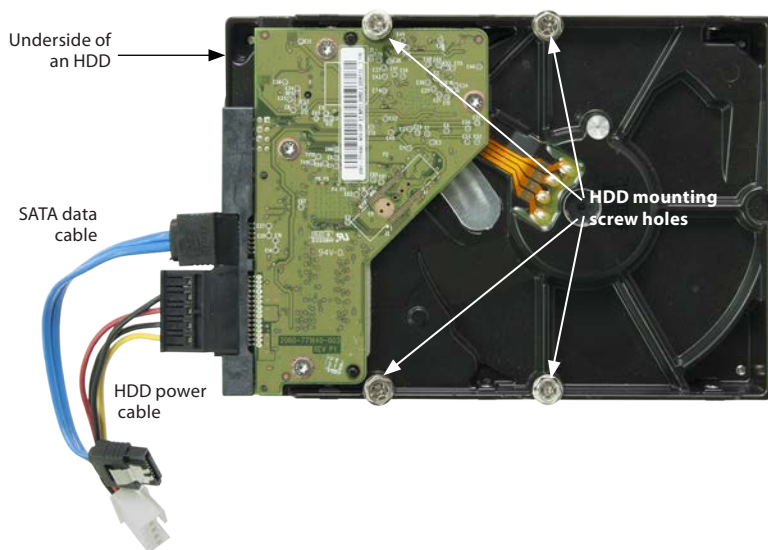
Follow recommended electrostatic discharge (ESD) guidelines while performing this procedure. Install the HDD in a static-free environment, wearing a certified ESD wrist strap. If a static free environment and ESD wrist strap is not available, touch the bare metal of the DVR chassis frequently when installing the drive to dissipate the static charge naturally generated on your skin and clothing and avoid touching electronic components.

1. Power off the DVR, if necessary, then disconnect the power adapter from the back of the DVR.
2. Remove the top cover from the DVR by removing the six cover screws. Two cover screws are located on each side, and two are located on the back panel. See the drawing below. Save the screws for use later.

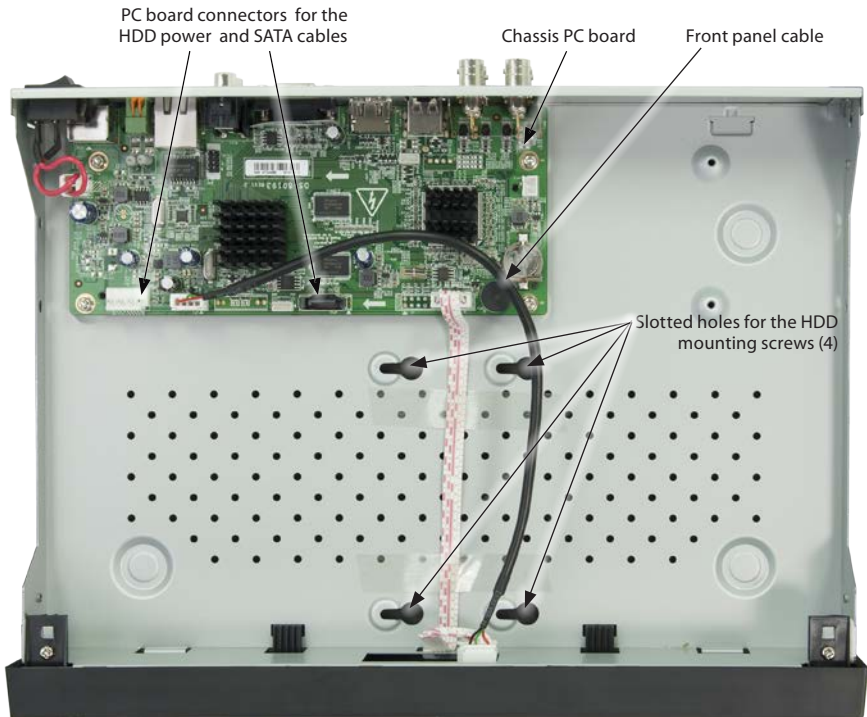


APPENDIX C: HDD INSTALLATION

3. Attach the SATA data and power cables provided to the mating connectors on the HDD. See below.



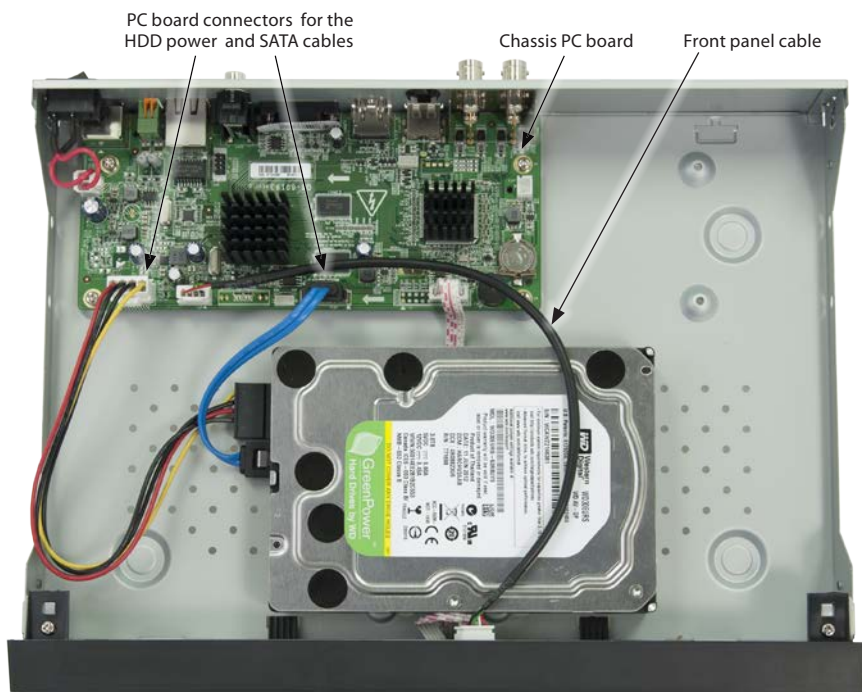
4. Locate the holes on the underside of the HDD for the mounting screws. See the photos above. Insert screws in the HDD mounting screw holes and turn them in 2 ~ 3 turns.
5. Locate the slotted holes in the chassis for the HDD mounting screws. See the photo below.



Front panel

6. Position the HDD as shown in the photo below, with the HDD mounting screw heads in the slotted holes. Slide the HDD to the left until the screws are fully seated in the slots. Note that the HDD is placed under the black cable from the front panel to the chassis PC board.

APPENDIX C: HDD INSTALLATION



Front panel

7. Plug the HDD power and SATA data cables into the mating connectors on the chassis PC board.
8. While holding the HDD in place in the chassis, carefully turn over the chassis with the HDD, and then tighten the four HDD mounting screws to secure the HDD to the chassis. Tighten the screws until snug.

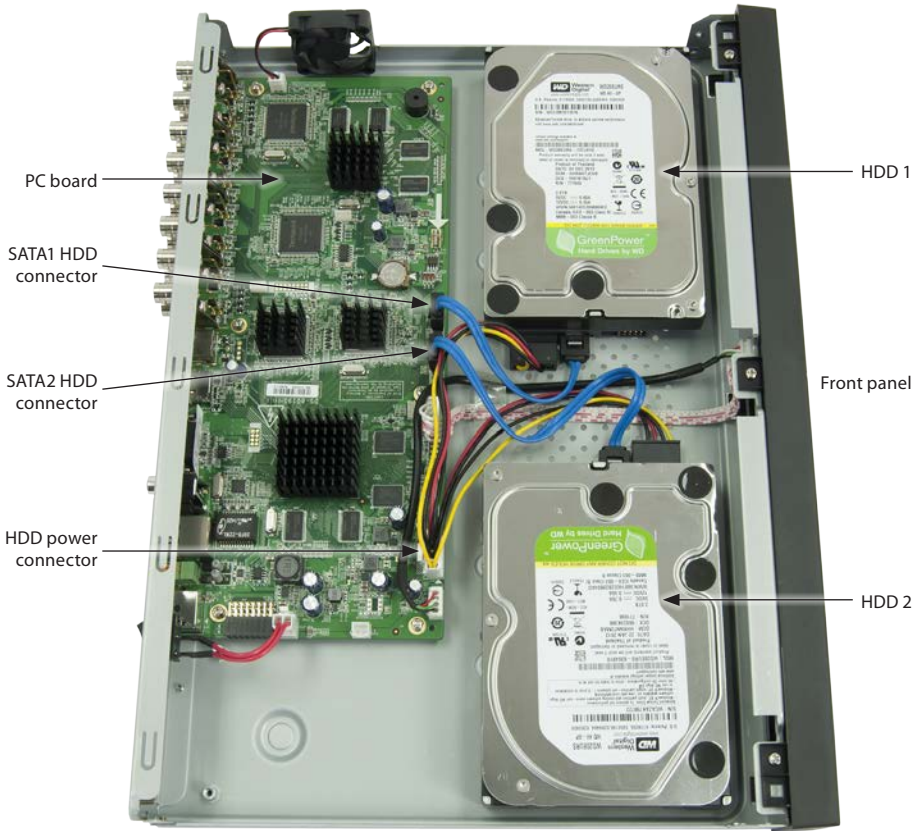


9. Turn the chassis over (top up). Check the SATA data and power cable connectors at both ends to ensure they are fully seated.
10. Reinstall the DVR cover using the cover screws removed earlier.
11. Reattach the power adapter to the back of the DVR.
12. During the DVR initialization, follow the options in the Wizard to initialize/reformat the HDD. You can also initialize the HDD using the DVR Menu HDD submenu.

11.5.2 ALI-HVR3016H HDD installation

The ALI-HVR3016H DVR can accommodate up to two HDDs (see the photo below). When installing HDDs in these chassis:

1. Use the guidelines detailed above for installing an HDD in a ALI-HVR3004H DVR.
2. Install HDDs one at a time. Always install HDD 1 first, and then install HDD 2.



ALI-HVR3016H HDD configuration